

CITY AND COUNTY OF BRISTOL

REPORT OF THE
MEDICAL OFFICER
OF HEALTH

FOR THE YEAR

1947

5906



CONTENTS

A. SUMMARY OF WORK OF THE PUBLIC HEALTH DEPARTMENT

	Page
Introduction	1
I. VITAL STATISTICS	2
II. GENERAL PROVISION OF THE HEALTH SERVICES	
Health centres and clinics	4
Laboratory facilities	4
Hospitals	6
Radiological services	12
Welfare of the blind	12
Home helps	13
Nurses Act, 1943 and 1945	13
Health education	13
Transport	14
Shop Acts and Young Persons (Employment) Act	14
III. MATERNITY AND CHILD WELFARE	
Infant welfare clinics	15
Bristol Infant Welfare Association	16
Premature babies	16
Health visitors	17
Midwives	17
Mother and Baby Home	17
Care of children apart from their parents	17
Nurseries	17
Sterility clinic	19
Unmarried mothers' welfare	20
Tutorial section	22
IV. PREVALENCE AND CONTROL OF INFECTIOUS AND OTHER DISEASES	
Diphtheria immunisation	23
Statistical comments	25
Tuberculosis	26
Tuberculosis financial allowances scheme	27
Thoracic unit	27
Mass miniature radiography	27
The Cancer Act, 1939	27
Acute rheumatism	28

B. APPENDIX

I. Port Health Services: medical inspection and sanitary circumstances. Report by Dr. D. T. Richards, chief assistant port medical officer	29
II. Sanitary circumstances, housing and inspection of food, Report by Mr. F. J. Redstone, chief sanitary inspector	37
III. Report of Public Analyst	49
IV. Treatment of venereal diseases. Report by Dr. A. E. W. McLachlan, director of the Bristol services	79
V. The work of the Preventive Medicine Laboratories. Report by Dr. K. E. Cooper and Dr. Dorothy Woodman	86
VI. Meteorological Observations, 1947, By Mr. H. H. Harding, meteorologist, Frampton Cotterell	93
VII. Premature Baby Unit. By Dr. Beryl Corner & Dr. Greta Hartley	94
VIII. Mass Radiography Unit. By Dr. E. E. Mawson, medical director	97
IX. Poliomyelitis. By Dr. R. C. Wofinden, deputy medical officer of health	104
X. Aspects of Meningitis in 1947. By Dr. J. Macrae, deputy medical superintendent, Ham Green Hospital	109
XI. Statistics	115
XII. List of Committee members and staff	155
XIII. Report of the School Medical Officer.	
XIV. Report of the Mental Deficiency Acts Committee.	

CITY AND COUNTY OF BRISTOL

**ANNUAL REPORT
OF THE MEDICAL OFFICER OF HEALTH, 1947**

My Lord Mayor, Ladies and Gentlemen,

I have the honour to submit my report on the state of the public health and sanitary circumstances of the city for the year 1947.

The Ministry of Health, in Circular 170/47, dated 31st December, 1947, have requested that the annual report of medical officers of health for 1947 shall be prepared on similar lines to that for 1946. This report has been prepared therefore, as during the war years, for reasons of economy in paper and labour, in abridged form. Amongst the subjects of current interest which the Minister wishes to see included are as previously, tuberculosis (including the allowances scheme), venereal disease (including tracing of contacts and follow-up of defaulters), the progress of diphtheria immunisation, as well as poliomyelitis; also to be included are the steps taken for the care of premature infants and illegitimate children. A further statement is required giving certain information in regard to the water supply of the area. At the beginning of 1947 the Minister referred in Circular 14/47, dated 13th March, 1947, to the duty of the medical officer of health under Section 128 of the Factories Act, 1937, to report specifically in his annual report on the administration of matters under Part I and 8 of that Act, and that he proposed to revert to the pre-war practice of providing Form 572 for furnishing the particulars required. This information is therefore included in this report.

The report is arranged in two main parts: (a) a summary of the work of the department during the year; (b) appendices, including special reports and statistics.

To the chairmen and members of the various committees, particularly to the chairmen of the Health and Education and Housing Committees, and also to the chief officers of the Corporation, I am indebted for the courtesy they have continued to show me at all times. Their co-operation has greatly facilitated the work of the department throughout the year. I wish to thank sincerely my colleagues in the Health Department for their loyalty and willing help.

In July, Dr. I. G. Davies resigned his appointment as Deputy Medical Officer of Health to become Medical Officer of Health of the city of Leeds. Dr. R. C. Wofinden was appointed in his place as from 29th September.

I am, my Lord Mayor, Ladies and Gentlemen,

Your obedient Servant,

R. H. PARRY,
Medical Officer of Health.

Department of Public Health,
Kenwith Lodge, Westbury Park,
Bristol 6.

I. VITAL STATISTICS.

Tables covering the vital statistics for the city are included in the Appendix pages 115-123. These figures are based on information supplied by the Registrar-General, who has directed attention to the fact that the estimates of the numbers and distribution of the non-civilian population are not available and that non-civilian deaths and non-civilian notifications are excluded. The estimated population from 1940 onwards is therefore the civilian population only and the various rates calculated on this basis are in consequence slightly overstated, whilst the rates for 1943 to 1945 are also subject to some further adjustment consequent on the correction of the Registrar-General's estimate of population of these years, particulars of which were given in my report for last year.

Estimated civilian population (mid-year)	...	428,600
Marriages	...	4,033
Rate per 1,000 population	...	18.82
Births	...	9,142
Rate per 1,000 population	...	21.33
Stillbirths	...	209
Rate per 1,000 total births	...	22
Deaths	...	5,114
Rate per 1,000 population	...	11.93
Natural increase per 1,000 population	...	9.39
Deaths under 1 year	...	267
Rate per 1,000 births	...	29
Deaths under 1 month	...	160
Rate per 1,000 live births	...	18
Deaths from puerperal causes	...	11
Rate per 1,000 total births	...	1.17

Matters of particular interest in the statistics and referred to below are:—

- Population of the city still increasing.
- Record number of live births in the city in 1947.
- The stillbirth rate is a low record.
- The infant mortality rate is a low record.
- No deaths from diphtheria—first year ever.
- No deaths from scarlet fever for two years.
- Infantile paralysis—high record number of cases.

Population.

The Registrar-General estimates the civilian population of the city at mid-1947 at 428,600, an increase of 11,510 on the figure supplied for mid-1946. A later provisional figure mentioned by the Registrar-General in his quarterly return of births, marriages and deaths shows the estimated civilian population at December 31st as having increased to 436,150.

Marriages (Rate: 18.82 per 1,000 population).

Marriages for the Bristol Registration District during 1947 totalled 4,033. This is 200 in excess of the figure for the previous year and is slightly higher than the average of the immediate pre-war years.

Births (Rate: 21.33 per 1,000 population).

In my report at this time last year I referred to the increase in the birth-rate which Bristol, in common with the rest of the country, was experiencing, 1,000 more babies having been born in 1946 than in the previous year. The increase continued into 1947, a total of 10,082 live births being recorded, an increase of 1,153 over the previous year and the highest number of births ever recorded in the city. The peak number of births was reached in the first three months of the year. Since then, however, the number of births registered, although remaining relatively high for most of the period, has gradually decreased to about the same rate as before the present rise. Recent wide fluctuations in the birth-rate evidence the need for caution in estimating their effect on total population trends in future years. Nevertheless, as stated in my report for last year, the varying sizes of certain age groups are now known and will have to be catered for in short or long terms according to the service. For example, the increase in the number of young people available for marriage in twenty years' time must have an effect on the birth-rate.

The total number of births for 1947 includes 1,026 (1,015 in 1946) cases not resident in the city, giving a figure of 9,056 babies born in Bristol of Bristol residents (7,824 in 1946). To this figure must be added the number of Bristol babies born outside the city boundary, namely 86, giving a corrected Registrar-General's figure of total Bristol live births, 9,142, which is a higher figure—excepting 1920, a peak year when 9,602 Bristol babies were born—than any other year since 1906, when 9,372 Bristol babies were born in a population of just over 363,000.

Illegitimacy (Rate: 52 per 1,000 live births).

There has been a further decline during 1947 in the number and the percentage of illegitimate births registered (521, equal to 5% of the total live births) compared with the peak year 1945, when there were 711 illegitimate births—nearly 10%. The number and proportion of non-residents under this heading has also declined again in the past year—82, equal to 15½% compared with 190 (27%) in 1945.

Stillbirths (Rate: 22 per 1,000 total births).

The stillbirth rate for 1947 is the lowest recorded for Bristol since stillbirths became registrable in 1928. There were 263 (274 in 1946) registered. Of these, 57 were outside city cases and this is the same number as in the previous year. There were 3 stillbirths amongst Bristol children born outside the city boundary. After these adjustments the stillbirth rate works out at 22 per thousand total births, an improvement of 3 per thousand over the low Bristol record of 25 established during 1945.

Deaths (Rate: 11.93 per 1,000 population).

The total number of civilian deaths recorded in the city in 1947 was 5,621, exceeding the previous year's total of 5,282 by 339. Deaths of non-Bristol residents included in these figures number for 1947 and 1946 respectively, 576 and 549. The net figure of Bristol deaths for 1947 is 5,114, compared with 4,897 in 1946. Some of the principal variations in the causes of death are referred to later, but it may be remarked here that the increase occurred mainly in the first quarter of the year when very severe weather prevailed and was attributed chiefly to heart disease amongst the advanced age groups.

Natural Increase (Rate: 9.39 per 1,000 population).

The natural increase in the population of Bristol, that is, the excess of births over deaths during the year, was 4,028.

Infant Mortality (Rate: 29 per 1,000 live births).

During 1947 in Bristol three hundred and thirty infants (including 69 non-Bristol) died within one year of birth. The slight rise in Bristol's infant mortality rate for 1946 has been followed by a new low record for 1947, the rate per thousand live births being 29, compared with 37 for 1946 and 35 for 1945, which was the previous best rate. This improvement has occurred wholly within the neo-natal age group. The mortality rate amongst illegitimate infants is usually much higher (almost double) than that amongst legitimates and it is noteworthy that whilst for many years the trend has been in the direction of closing this gap, for the first time the infant mortality rate for illegitimates is lower than that for legitimates. This is particularly striking having regard to the fact that it has occurred in a year in which the total infant mortality rate has fallen below 30 per thousand.

Neo-Natal Deaths (Rate: 17.5 per 1,000 live births).

As already indicated, the new low record for infant mortality is to be found in the improved survival rate of infants during the first month of life. The Registrar-General's figures for this age group are not available, but local figures indicate that the number of babies dying in Bristol during the first month of life was 188 (233 in 1946), which is equivalent to 60% of the number of deaths of infants under one year of age. Based on the previous best (1945) mortality rate approximately 30 more deaths of infants under one month of age might have been expected. After adjustment for residence at the time of death the figures are respectively 160 for 1947 and 192 for 1946. The principal causes of death in this age group were:—

Premature birth	...	...	...	...	42%
Congenital malformations	...	...	...	...	19%
Birth injury	...	...	...	...	9%
Atelectasis	...	...	...	...	12%

These show a reduction in number compared with the previous year, the most noteworthy being 26 fewer neo-natal deaths ascribed to prematurity even though the increased number of births notified this year has included approximately 150 more premature babies. We are not satisfied, however, and during next year an enquiry into neo-natal deaths and stillbirths is being organised with a view to obtaining further information on causation and prevention.

Maternal Mortality (Rate: 1.17 per 1,000 total births).

There were 16 maternal deaths in the city during 1947. Of these, nine were Bristol cases, to which a further 2 cases of Bristol residents dying outside the city must be added to make a total of 11 Bristol deaths compared with a total of 18 for 1946. The resulting maternal mortality rate of 1.17 per thousand total births establishes a new low record in Bristol. An analysis of the maternal causes of death will be found in Table 5 of the Vital Statistics.

II. GENERAL PROVISION OF THE HEALTH SERVICES.

Department of Preventive Medicine. (statistics pages 124/5).

Dr. K. E. Cooper has contributed a report on the work of the Preventive Medicine Laboratories, together with notes on the clinical pathological section by Dr. Dorothy Woodman. This is included in Appendix No. V, page 86.

A brief report by the Public Analyst on the work in his department is also included in Appendix No. III, page 48.

In my report for last year I referred to the recommendation for the establishment of a chair of child health in the University of Bristol. Dr. A. V. Neale took up his appointment as professor of child health in September and the Health Committee undertook to give him all facilities necessary to provide him with access to patients at Southmead Hospital. With this object in view they considered, at a special meeting of the Committee held at Southmead Hospital in November, a report by Dr. Neale recommending measures for the reorganisation of paediatric facilities at the Hospital.

Health Centres (statistics pages 126-137).

The remarks in my report last year on the increased number of attendances are again significant this year. The increased number of births during 1947 has resulted in an increased number of sessions and attendances and the restriction on bookings for hospital maternity beds has had to be maintained.

The purchase of Brooklea Estate was completed during the year and the Ministry's approval for loan sanction has been received. The site for a new health centre for the area of St. Anne's has therefore been secured for development as soon as new building becomes possible. Meanwhile the Health Committee has approved a temporary scheme for the adaptation of the old Mansion House, which has been leased from the Baths Committee in whose allocation of part of the estate this house stands. The scheme, which is estimated to cost £7,500 for adaptations and a further £2,500 for furnishing and equipping, has been approved by the City Council and now awaits the sanction of the Minister of Health. The facilities which will be provided at this temporary centre include the usual routine maternity and child welfare, school health services and a dental surgery.

Dowry Square infant welfare centre and Hotwells day nursery are accommodated in a building which has now become the property of the Health Committee, having been purchased from the voluntary association owners during the year for the sum of £850.

Clinic services have been extended in Bristol North, where an infant welfare centre to serve Lockleaze has been opened in St. Francis Church Hall, and a maternity and child welfare centre has been established in premises at Frenchay Park General Hospital, to serve the prefabricated housing estate at Begbrook. In the south of the city, arrangements have been made to hire Brislington Church Hall for maternity and child welfare and school health services as soon as the necessary repairs and redecoration have been completed. Steps are also being taken to re-accommodate the infant welfare centre at Headley Park, where the continued tenancy of a sports hut used for clinic purposes is no longer possible.

It had been expected that by the end of the year some guidance might have been received from the Minister on the kind of development towards which local authorities should aim in their schemes for the provision of health centres within the meaning of the National Health Service Act. The Minister has indicated, however, that by reason of the practical impossibility of a new building programme at the present time and the need for intensive research and thought about design before new development is launched, local authorities normally will not be expected to submit to him yet any proposals for the immediate provision of health centres. In my report for last year, however, I referred to the steps which are being taken in co-ordination with the Planning Committee and other committees of the Council to secure that land required for civic purposes is earmarked or acquired for certain services. This object is being pursued in so far as sites for health centres are concerned so that no opportunity will be lost of securing a site which might otherwise be developed for alternative purposes of lesser public interest. Several sites have been chosen and approved by the Health Committee and by the Planning Committee, and negotiations are proceeding for their acquisition from private owners or their appropriation from other Corporation committees.

In adjusting proposals to meet the needs of various committees it occasionally happens that the Health Committee are approached to relinquish their ownership in favour of another committee. They were able to do so, for example, in the case of land at Broadfield Road (opposite to the health centre) where the needs of the health centre programme were already secured and where it was shown that the Education Committee required the land for a nursery.

Programme of Capital Expenditure

The programme of capital expenditure has been kept under constant review during the course of the year. At the end of the year the programme of the Committee as approved at that time was as follows:—

(a) *Work in hand or to be put in hand as soon as possible.*

Adaptation of premises, Marybush Lane, for offices of Health Department.
Southmead Hospital—extension of kitchen, extension of laboratory, conversion of "O" Ward.

Nore House Residential Nursery—adaptations for residential accommodation.
Residential and Day Nurseries' acquisition—Frenchay House residential, Frenchay Lodge residential, St. Matthew's day, Hotwells day.

(b) *New works contemplated.*

Brooklea—conversion of mansion as health centre and furnishing and equipping.

Southmead Hospital—completion of alterations to "P" Block.

Bedminster Health Centre—extension and furnishing and equipping.

Speedwell Health Centre—extension and furnishing and equipping.

Frenchay Sanatorium—day rooms and furnishing and equipping.

Ham Green Sanatorium—heating administration house, patients' clothing store.

Snowdon Road Hospital—new vegetable store.

Joint Committee on Medical Appointments.

The Joint Committee's recommendations on registrarships were received and approved by the Health Committee in March. The principal recommendations were:—

(a) that registrars shall in all cases be attached to teams, subject to the jurisdiction of heads of teams whom heads of departments should consult when asking for the services of registrars for teaching purposes;

(b) that registrarships shall be University appointments and that the salaries shall be shared, as at present, between the University and the hospitals concerned;

(c) that registrarships shall be regarded as whole-time appointments with the following provisos:—

(i) that when required registrars shall be allowed to assist their chiefs in private practice but not to deputise for them; heads of teams shall be asked to state the extent of the private practice in which they may call upon registrars to assist them.

- (ii) that in special cases and by prior consent of the Joint Committee registrars may be allowed to serve in special clinics; that hospitals shall be asked to state to what extent the work of registrars in special clinics interferes with their work for hospitals;
with the above exceptions registrars shall not be allowed to engage in private practice;
- (d) that the teaching of undergraduates, graduates and nurses in the University or in the hospitals shall be part of the normal duties of registrars;
- (e) that registrars shall be allowed to undertake a limited amount of examining work for outside bodies, and for this purpose they shall be on the same footing as other full-time members of the staff of the University;
- (f) that the Joint Committee on Medical Appointments shall be responsible for the appointment of registrars and for the establishment of vacancies which shall not, however, be filled unless the constituent bodies agree.

Hospitals.

General.

The number of chronic sick cases awaiting admission to hospital has continued to increase and there has been no improvement in the rate of admission to hospital for reasons which are now well known; that is, shortage of beds due to insufficient accommodation and shortage of nursing and other hospital staffs. The sick visitor on the staff of the medical officer of health continues to investigate every case on the waiting list for the purpose of selecting those cases in most urgent need of hospital treatment and arranging for their order of priority in admission.

All the steps outlined in my report for last year to give publicity to the difficulties in which hospitals were placed as a result of staff shortages, have been pursued in 1947. In spite of all efforts, however, the infantile paralysis epidemic of the summer found Ham Green Hospital in serious difficulties due to the shortage of nursing staff. It became necessary to close one tuberculosis ward to release the necessary nursing staff to deal with the cases of infantile paralysis and those cases under observation. However, a position was reached when no additional cases could be accepted and it would be impossible to open further wards without an improvement in the staff position. A special report on the seriousness of the position was made to the City Council.

Specialist Services.

A report on the reorganisation of the specialist services in Bristol was included as an appendix in my annual report for 1946. The names of consultants and specialists recommended for appointment to the teams of physicians and surgeons were approved early in the year when the scheme, in so far as it related to general medicine and surgery, came into operation.

Southmead Hospital (statistics page 138).

The medical superintendent, Dr. P. Phillips, reports as follows:—

"The work in this hospital has increased during the year, so that admissions and births exceeded 10,000 for the first time in its history. Operations performed numbered 1,875, a new high record, whilst deaths were fewer than in 1946. New developments calling for particular attention were as follows:— Extension and re-equipment of the hospital kitchen has been commenced and when completed will give a much more spacious kitchen with adequate accommodation for the most modern equipment. It will also aid the more speedy service of meals to the wards. To provide accommodation for clinical pathology, a portion of the new blood transfusion buildings, not now required, is being adapted internally for this use. It will give much better facilities for this important work which is bound to develop greatly in future.

During 1947 the main corridor and four of the main wards were redecorated. As soon as labour and materials are available the remaining wards should be done. A small number of special beds have been placed at the disposal of physicians for the experimental use of streptomycin in the treatment of tuberculosis meningitis and miliary tuberculosis. It is as yet too early to assess results. The premature baby unit has operated to capacity throughout the year and to help its work two smaller wards have been added. We still look forward to the provision of a specially designed and equipped building."

Postgraduate Education of Medical Officers.

The scheme started in 1946 has continued throughout the year, all available accommodation being fully occupied. As postgraduate work is likely to grow in future it is essential that additional rooms be provided for these officers returning from the services. The Health Committee have approved the provision of additional accommodation in P Block for this purpose and the necessary alterations are an urgent matter.

On 30th September, 1947, all venereal disease patients were transferred to Frenchay Hospital, together with some of the equipment and staff. Q Block, thus liberated, will become available for some other purpose, and plans for its alteration for the use of the paediatric department have been prepared, a special meeting of the Health Committee in September, having considered a report from Professor A. V. Neale, professor of child health.

In December, 1947, the casualty department attached to Monk's Park Clinic was vacated by maternity cases. This enabled shortage of staff in other midwifery wards to be made good.

During the year we were favoured by a visit from the British Gynaecologists Club and on 24th October, 1947, the maternity department was open to their inspection, whilst demonstration operations were also arranged.

The next immediate development contemplated, and on which work is likely to commence in the new year, is the conversion of Ward O as a new x-ray department and hospital library. This work has been given an early priority and will provide much more spacious rooms for the actual x-ray apparatus and also adequate waiting and changing rooms. It is hoped that the library will be cared for by the City Librarian's Department, so that a good interchange of books will be maintained for the use of patients and staff.

Snowdon Road Hospital (statistics page 138).

Dr. P. Phillips, medical superintendent, reports as follows:—

"This hospital is still administered as an annexe to Southmead Hospital and is now entirely devoted to the care of chronic cases. Most of these are admitted first to Southmead and then transferred if they are likely to become long-stay cases. Even so they are reviewed from time to time and the scheme for weekly visits by consultant physicians ensures continuity in their treatment. During the year those requiring surgical treatment or x-rays have been transferred to Southmead temporarily.

Staffing has again been helped by part-time workers and assistance from youth organisations at the weekends.

All male venereal disease cases were transferred to Frenchay Hospital during 1947 and also men from a ward temporarily devoted to tuberculosis. The wards thus liberated have helped in the provision of more beds for the chronic cases.

The number of patients admitted during the year was:—

General (male and female)	...	...	...	253
Tuberculosis (male)	...	...	...	19
Venereal disease (male)	...	...	...	46
Total	...	...	...	318

Development of many social functions and entertainments for the patients has been of great value in this work, and the staff are to be congratulated on the keen enthusiasm they show. A delightful Christmas concert was attended by the Lord Mayor."

Mortimer House Maternity Hospital (statistics page 138).

This hospital is under the direction of Dr. P. Phillips, medical superintendent of Southmead Hospital, who reports as follows:—

"This unit of 35 beds has been administered as in the previous year. There was an increase of nine cases over those admitted in 1946.

Maternity cases admitted	...	...	...	...	687
Normal deliveries	...	...	...	...	630
Abnormal deliveries	...	...	...	...	57

Of the normal cases, 191 required some form of medical assistance.

Number of cases of pyrexia	16
„ „ infants wholly breast fed	600
„ „ infants who received supplementary or complementary feeds	87
„ „ cases of ophthalmia neonatorum	nil
„ „ maternal deaths	nil
Number of stillbirths	9
Causes of stillbirth:—	
Macerated foetus	2
Hydrocephalus	2
Prolapsed cord	1
Prematurity	1
Atelectasis	3
Number of infant deaths under ten days	3
Causes of death in each case:—	
Multiple deformities	1
Atelectasis	1
Congenital heart disease	1

These cases were admitted chiefly from ante-natal clinics conducted at Mortimer House Clinic and Bristol South Clinic in Bedminster. As the figures above show, breast feeding was particularly good, and in my view this reflects the excellent effect of a homely atmosphere.”

Frenchay Park Hospital (statistics page 138).

Dr. W. L. Broadfoot, medical superintendent, reports as follows:—

Long-Stay Ward.

It was not possible during 1947 to extend the provision for female long-stay patients owing to the nursing shortage. At the commencement of the year there were 18 cases, 4 were admitted in 1947 and there were 2 deaths.

Tuberculosis Observation Wards.

One of the four tuberculosis observation wards approved by the Ministry of Health was opened in June and during the year 34 cases were admitted. There were 7 deaths. It is hoped to open a second male ward shortly.

Venereal Disease Unit.

On the 17th March the male venereal disease patients accommodated at Snowdon Road Hospital were transferred to this institution, together with staff, and these cases were followed in October by the female unit from Southmead Hospital. One hundred and forty-one male and 52 female cases have been treated in the unit during the year. There were 5 deaths (male).

Thoracic Unit.

Five hundred and twelve patients from various parts of the South West Region were admitted to the thoracic unit during the year, of which 99 were male surgical tuberculosis cases. It is a matter of great concern that we are still unable to obtain sufficient female staff to open the female surgical tuberculosis ward. A ward for children is also urgently needed, as at present they have to be accommodated in the adult wards. One hundred and sixty-one major operations were performed during the year. There were 17 deaths.

Neurosurgical Unit.

Arrangements were made for the transfer of this unit from the Burden Neurological Institute in April, 1947, and 2 wards (one male and one female) were opened. Miss Diana J. Kinloch Beck, F.R.C.S., was in charge of the unit until December, when she resigned to take up another appointment. One hundred and twenty-seven cases were admitted to the unit during this period. There were 18 deaths. The unit is now closed temporarily pending the arrival of the new director, Mr. G. L. Alexander, F.R.C.S., and medical staff.

Intensive Course for Ex-Service Nursing Orderlies.

This course commenced in February, 1947. There were 47 candidates and it is hoped that they will sit for the State Final Examination in February, 1948. Lectures were given at Frenchay Park Hospital and practical work at various hospitals throughout the city.

Ham Green Hospital and Sanatorium and Charterhouse Hospital. (statistics page 138).

Dr. B. A. Peters, medical superintendent, Ham Green Hospital and Sanatorium, reports as follows:—

"As this is the 37th and the last time upon which I shall have the privilege of submitting the annual report on the work at the Hospital to Committee, I should like to draw your attention to the advances in the treatment of the diseases treated in this Hospital during that period.

In 1910 there were 200 beds and, including Charterhouse Hospital, this number has now grown to nearly 600. In 1910 only a very few diseases were treated, namely scarlet fever, diphtheria, enteric, but in recent years the scope of the Hospital has been vastly increased owing to the admission of a large number of other infective conditions such as the various types of pneumonia and meningitis, and various cases suffering from fever of unknown origin for hospital investigation.

The Sanatorium department was first started in 1912.

Diphtheria.

Last year 64 genuine cases of diphtheria were treated without any deaths, although 6 of these were dangerously ill, including 2 which needed tracheotomy. From 1910 to 1919 the ordinary type of diphtheria was present with an average of three or four hundred cases per year, with a mortality of about 20 per annum. In 1920 an intensely virulent type of the disease appeared which reached its height in 1921 with 825 admissions, and in that year 79 patients died, an average mortality of 8.7%

The incidence remained high with a high mortality rate, and the biggest wave of admissions occurred in 1930 when 1,374 cases were admitted, but, owing to improvement in treatment which had been worked out in this Hospital, the mortality in that epidemic was only 2.7%. From then until 1940 Bristol had more than her share of the disease with 784 cases in that year, but since then there has been a steady fall in admissions, reaching its lowest in 1946 with 58 cases of which 4 died.

This is, of course, a magnificent achievement of preventive medicine, as apart from the deaths, many of the patients who recovered were desperately ill for weeks. Before preventive methods were started one fifth of the total staff joining our hospitals inevitably contracted diphtheria. We have had no case of diphtheria amongst the staff for over three years.

Scarlet Fever.

This has never been a very deadly disease during my period of office in this part of the world. During the early years the mortality rate was slightly under 2%, but for the last two years there has been no death in the Hospital, although the disease is much the same in virulence as it has been. The introduction of sulphonilamide and antitoxic sera has greatly reduced the dangers from the disease.

Curiously enough during the last five years there has been a steady fall in scarlet fever as well as diphtheria. Whether this is pure coincidence or not is doubtful, as on a former occasion I pointed out that, from Schick and Dick tests on the staff, immunity or susceptibility to the two diseases in them seemed to run parallel. It would perhaps be a mistake to attribute the striking fall in diphtheria entirely to immunisation, as infectious diseases, of course, undergo cyclical periods of relative activity over long periods of time and even now there are a considerable number of unprotected people among the juvenile population of Bristol and any laxity on the part of parents in having their children immunised would soon tell its deadly tale again. Also it is not impossible, as has been shown with penicillin, that new types of bacteria may emerge which may be less tractable to our present methods of prevention than the present prevailing types, so to hope that the infectious diseases hospitals will soon be completely unwanted is probably misplaced optimism.

Enteric Fever.

In 1910 enteric fever was present in not very large numbers—15 to 20 cases were admitted most years—but now it has become an extreme rarity and no genuine cases were treated in the Hospital in 1947.

Infantile Paralysis.

Eighty-four cases were admitted suspected to be suffering from infantile paralysis, but in only 25 of these was the diagnosis confirmed, with one case proving fatal with respiratory paralysis. If the figures over the country of notified genuine cases are similar to Bristol's, the dimensions of the epidemic appear to be multiplied four times, although even this is a much higher figure than for many years.

Cerebro spinal fever.

For the last two years no deaths have occurred in the Hospital from cerebro spinal fever out of 41 cases treated during that period.

Before sulphonilamides were introduced half the patients with this disease used to die very often an extremely painful and lingering death.

Numerous other cases of meningitis were also treated and my Deputy, Dr. Macrae, has appended a note about these (see Appendix, page 109). One of the most gratifying features of these cases is the complete recovery, through streptomycin, of a child with a tuberculous meningitis, a disease which previously was invariably fatal.

Puerperal Fever.

There have been no deaths in the Hospital from puerperal sepsis since 1944 for three years, although 48 cases have been treated. This disease previously used to have a mortality of about 25%, and even those who recovered had a very prolonged and disabling illness.

Measles.

Two hundred and seventeen cases were treated last year. We are only able to admit a small fraction of the total number of cases in the town, but these are always the most severe cases. One case died, giving a mortality of $\frac{1}{2}\%$. Previous to the introduction of modern chemotherapy, the mortality used to be about an average of 10% on similar hospital cases.

Erysipelas.

Thirty-eight cases of this disease were under treatment during the year which is about the average number at present. We have had only one death in Hospital from this disease for 3 years, and that occurred in a case within a very few hours of admission, although until the discovery of chemotherapy the mortality for this used to be 7%.

Gastro enteritis.

Eighty-seven cases of this disease in young infants were treated during the year with 5 deaths, a mortality rate of 5.7%. This is an extremely low rate for hospital treated cases, as the average is usually 25%. If congenital causes are excluded, this disease causes approximately one fifth of the total deaths of all babies under one year.

We have been carrying out a special investigation in this disease for the past two years and the methods of treatment introduced appear to be giving favourable results, as the above figures would indicate. This disease occurs almost exclusively in bottle fed babies.

Whooping cough.

Seventy-six cases of whooping cough were admitted of which 4 died. As there is no specific treatment for this disease, it still takes quite a heavy toll of young children, although the sulphonilamides save a good many from the fatal secondary complications. If a satisfactory vaccine could be obtained against this disease, it would save a good deal of dangerous and distressing sickness, because even after apparent recovery, a certain amount of damage is inflicted on the bronchial tubes (bronchiectasis) which may cause very considerable chronic disability in later life.

Pneumonia.

Owing to the reduction in accommodation, only 160 cases of primary pneumonia of all ages were treated in the Hospital. This is only half the number we have been able to treat previously and the figure is likely to be much lower this winter owing to the lack of accommodation.

The above notes would indicate in the last 37 years a great advance in the treatment of most of the diseases dealt with in this Hospital, with all facilities for treating large numbers of febrile diseases with probably increasingly good results. It is, however, very distressing to record that our activities have been impaired during the last two years by a steady diminution of our staff, owing to the lack of recruits for training. At the moment in this Hospital and Sanatorium, including Charterhouse, there are 177 beds empty for lack of staff out of a total of 586 beds. The actual number of female nurses, including student nurses, is less than when I took charge of this Hospital 37 years ago. There are 20 beds empty in the Sanatorium and if it were not for the fact that we have a considerable number of male nurses to look after the male patients the sanatorium would have been down to 86 beds out of a total of 234 available. Fortunately, owing to your Committee's policy of employing male nurses, even previous to the war, we have been able to keep open 214 sanatorium beds which is 54 more than we had pre-war, but against that we have to deplore a waiting list of 48 males and 55 females.

Unless something drastic is done to attract recruits to this special type of hospital, we shall lose, at the present rate of loss, another 40 beds for infectious cases at the end of January and, if this continues further, the infectious diseases side will be non-existent by the end of the coming year. Even now the bulk of the nursing has to be done by orderlies who are not receiving proper training and are only able to give part time to the work; also the number of these helpers is tending to decline rather than to increase.

The fever section is now receiving cases as far afield as Cheltenham, owing to the same problem in the surrounding districts. Many very serious cases admitted need the best possible nursing care, which is extremely difficult to give with the disastrous shortage of skilled staff, even for the small number of beds which are available to cover such a large area.

Sanatorium.

The number of sanatorium admissions was 253, which is slightly less than last year because another ward had to be closed in the summer. We have been able to keep Charterhouse going, again largely by means of unskilled orderlies, and 80 patients were treated there with great benefit during the past year.

I should like to pay a special tribute to the Matron and to the Sisters of the two Institutions to whose skill and devotion in carrying out the actual treatment of the patients, as ordered by the medical staff, has given such excellent results, in spite of the grave difficulties they have had in carrying out their task owing to the acute staff shortage already recorded.

Nursery Unit.

Fifty-six children were admitted to the residential nursery unit accommodated at this hospital during the year.

Maternity and Child Welfare.

A maternity and child welfare clinic was opened in January, 1947, and the numbers attending have grown rapidly throughout the year.

Frenchay Park Sanatorium (statistics page 138).

Dr. E. E. Mawson, resident medical officer, reports that during the year there were 186 admissions, 169 discharges, and six deaths. At the end of the year 81 patients remained in the Sanatorium.

Ward I, which was brought into use during 1946 entirely for young female adults, has been so used again during 1947. The ward has been kept full because the need for sanatorium treatment has been greatest in the 16—23 age group. This ward is quite separate from the other two blocks, so that these patients are not a possible source of infection, nor are they disturbed by the children.

Six children from Oxford and one from Salisbury have been treated in Ward II. There is now no physiotherapist resident at the Sanatorium. Children who are not confined to bed and who require physiotherapy for non-tuberculous chest conditions, visit Frenchay General Hospital for treatment four times a week. Times of treatment are kindly arranged by the hospital so that there is no interference with the children's attendance at school.

Mr. Belsey has continued to pay a weekly visit throughout the year. Mr. Pridie, Mr. Scarff and Mr. Hazell have maintained monthly visits.

Stapleton Institution.

Dr. S. Datta, medical officer, Stapleton Institution, reports as follows:—

"The shortage of nursing staff has been the most serious problem with which it has been necessary to contend. This has enforced at times the closing of the admission wards for observation cases under the Lunacy Acts.

Complete immunity from epidemics has been a pleasing feature of the year's work. Two cases of pulmonary tuberculosis and one of erysipelas were notified during the year.

There were 784 patients resident on 31st December, 335 of these being certified under the Lunacy Acts and 135 under the Mental Deficiency Acts. Three hundred and fifty-eight cases were admitted during the year and 177 deaths occurred."

Eastville Institution.

Dr. J. A. L. Roberts, medical superintendent, Eastville Institution, reports that a total of 297 cases were admitted during the year; 194 were discharged and there were 117 deaths.

During the year the attention of the Health Committee was drawn to the acute shortage of staff at the Institution to deal with the chronic sick. The position was relieved temporarily to some extent by transferring a staff nurse from Southmead Hospital, by persuading orderlies recruited for the Corporation's Hospitals to undertake duty at Eastville for a short period, and arrangements were also made to transfer 12 patients from the Institution to Snowdon Road Hospital.

Radiological Services (statistics page 132).

Dr. Sparks, in reporting on the work of the radiological services, refers to the fact that the volume of work in all departments has continued to increase. The volume of increase at the Central Health Clinic has been so great that a large number of patients who would have been examined at the clinic have had to be transferred to Southmead Hospital.

A new neurosurgical x-ray department has been constructed at Frenchay Park, and work is now commencing on the conversion of O Block for the new x-ray department at Southmead Hospital.

Welfare of the Blind.

Miss R. M. Honeyball, welfare officer for the prevention of blindness, reports that during 1947 sixty-seven new cases were added to the register of the welfare officer, making a total to date of 167. The majority of new cases are referred from the Bristol Royal Eye Hospital, the remainder from the Royal Blind Asylum. The number of home visits paid during the year was 234, and in addition 74 people were interviewed at the Central Health Clinic.

Transport was provided for 27 cases to enable them to attend the Bristol Eye Hospital for treatment, which they would otherwise have to forego, as many have nobody available to take them to hospital. It will be the duty of the local health authority, under the National Health Service Act, to provide necessary ambulance service free of charge for such cases where need exists, and the ambulance scheme for the city, to come into operation on the appointed day, makes provision accordingly.

It is becoming increasingly obvious that some form of permanent home help service is required for the welfare and maintenance of health of the blind and partially blind in their own homes. There are now 24 names on a list which has been kept of people needing such help. It is estimated that in order to provide the services of home helps for two half-days each week in the homes of these unfortunate people the full-time services of two home helps would be required. They would then be assured at least of having their weekly shopping, a meal, and perhaps some of their washing and cleaning done for them. Relatives, friends and neighbours do not in many cases appear to be very reliable. The welfare officer instances cases of aged persons who are

living quite alone and who have been known even to go without their rations because no one was prepared to fetch them for them. Another instance was a case of a person with family responsibilities who had become recently blind, so that she was unable to undertake the normal domestic duties in connection with the household.

These are the class of cases for which the department hopes to provide some domestic help under the extended scheme proposed to be operated under the National Health Service Act. Patients whose income is insufficient to meet the full charge for the service will be assessed at part charge or free according to the Committee's assessment scale.

Some patients take advantage of the service provided in co-operation with the Bristol Council of Social Service, whereby hot midday meals from the British Restaurant are taken to the homes of approved cases on two days a week. Unfortunately not all the elderly people who would benefit from this service can afford the extra two shillings a week which it involves.

During 1947 it was possible to arrange for two partially-sighted girls to enter the Home of Recovery run by the National Institute for the Blind at Torquay. As a result one of the girls is now training to be a warden in a Y.W.C.A. hostel and it is hoped that the other girl will take up similar work shortly.

The work of this welfare section is developing, and although progress has been slow, as was expected, much good work has been done to justify the original proposal for the appointment of a welfare officer for the prevention of blindness. Arrangements will therefore be made for the continuation of this work by making provision in the Health Committee's scheme for care and after-care under the National Health Service Act.

Home Helps (statistics page 139).

The appointment of a full-time organiser for the home helps service, referred to in my report for last year, which gave details of the present arrangements for this service, has not yet been made. The service therefore remains under the direction of Miss Bendall, matron of the external nursing services, and she is assisted in the supervision by her deputy and by the supervisor of midwives.

Shortage of staff has not permitted any extension of the service, which has had to be limited to short-term cases with a limit of six weeks on the provision of a home help in any particular case. Close co-operation has existed, however, between the Department and the Bristol Council of Social Service, who, with the aid of voluntary subscriptions, have been maintaining a service of home helps amongst the aged and infirm and long-term sick who have been found in need of assistance. The Health Committee's proposals under the National Health Service Act, Section 29, envisage the continuation and extension of this co-operation by making the Bristol Council the agents of the Health Committee for affording a home helps service to the same class of cases with which they now deal.

It is hoped that the full-time organiser on the staff of the Medical Officer of Health will be appointed in the coming year.

Nurses Acts, 1943 and 1945.

Applications were received from six nurses' co-operations for the renewal of their licences for a further year. These licences were issued subject to the deletion of the condition relating to the maximum fees charged for the services of nurses. This decision was made in view of the High Court action which was pending and was a temporary measure subject to review when a decision of the Courts had been reached.

Health Education.

Following last year in which it was not found possible to meet all the applications for talks to parent teachers' associations, youth clubs, adult classes, and other groups, by members of the public health staff, there has been some diminution in the number of requests. There is a continuing demand, however, from many groups for permission to visit various sections of the health department, so that they may be better informed in regard to the services provided.

Posters, leaflets, and film shows, arranged in co-operation with the Central Office of Information, who supply films, apparatus and operator free of charge, have all been used for the purpose of health education.

It is, of course, impossible to estimate exactly what is the effect on health progress of the various channels and methods of health education. There is undoubtedly considerable variation according to the circumstances in which advice is tendered. For example, in the poliomyelitis epidemic of last year, the public were very health conscious in regard to this particular disease and therefore very ready to listen to their medical officer of health. In other instances, however, as for example in the campaign for cleanliness, particularly amongst food handlers, it is much more difficult to relate conduct to effect in the minds of the offenders, so that continuous and unremitting effort is therefore required in this field of health education. The personal visit and follow-up of the sanitary inspector and health visitor are invaluable. Much health education work has been carried out by the sanitary inspectors amongst food handlers in the city during the past two years and the incidence of dysentery has now fallen to negligible proportions from the peak figure of 386 in 1945, whilst the continuous drive for diphtheria immunisation is reflected in the relatively high percentage of children immunised and the virtual elimination of this disease from the city.

Office Accommodation.

Reference has been made in previous reports to the scheme for adapting premises in Marybush Lane at the rear of the Central Health Clinic for offices for this department. Arrangements are now well in hand for the commencement of work on this project early in the new year. It is expected that the work will be completed within the twelve month.

Transport.

The whole of the ambulance work of the Corporation and the necessary transport of goods and personnel is now undertaken by the centralised transport department of the city under the chief transport officer.

Shops Act and Young Persons (Employment) Act. (statistics page 146).

Mr. C. L. Bryant, chief shops acts inspector, reports as follows:—

The present Shops Acts number seven and for convenience may be divided into two sections:—

1. Those sections dealing with the closing of shops on the weekly half-holiday, in the evenings, and on Sundays.
2. Those sections dealing with the conditions of employment of shop assistants and young persons, i.e., weekly half-holiday, meal and rest intervals, night employment and weekly hours of employment of young persons under 18 years of age, seating for female assistants, and compensatory holiday for Sunday employment.

Section 10 of the Shops Act, 1934, which deals with sanitation, heating, lighting, ventilation, etc. is dealt with by the chief sanitary inspector. Under this section, 97 cases where conditions were unsatisfactory were referred to the chief sanitary inspector.

The Young Persons (Employment) Act, 1938, provides for the control of working hours, meal and rest intervals, night employment and Sunday employment of young persons under 18 years of age employed in certain occupations outside the scope of the Shops or Factory Act.

Routine Inspections.

During the year 4,857 visits and 1,478 revisits were made under the Shops Acts, and 55 visits and three revisits under the Young Persons (Employment) Act.

With the authority of the licensing justices regular visits have been made to cinemas, etc. to inspect the records of Sunday employment and holidays required to be kept under the Sunday Entertainment Act.

Legal Proceedings.

Legal proceedings were taken in three cases for contraventions of the employment provisions of the Acts.

In one case six summonses were issued, convictions obtained and fines imposed in each case.

In another case eight summonses were issued, convictions obtained and fines imposed in five, three summonses being dismissed.

In the third case five summonses were issued, convictions being obtained and fines imposed in each instance.

Evening and Sunday Duty.

Evening and Sunday duty has been carried out as required but less time has been devoted to this side of the work, due to the earlier closing of shops in general.

The wartime Defence Regulation fixing earlier closing of shops during the winter months has been kept in force by the Government. This regulation fixes a general closing hour of 6 p.m. and 7.30 p.m. on the "late day" from November to February inclusive.

Sanitation, Housing and Inspection of Food statistics pages 140-145).

The report of the chief sanitary inspector, Mr. F. J. Redstone, is contained in the Appendix page 37.

Port Health.

The report of Dr. D. T. Richards, chief assistant port medical officer, is included in Appendix I, page 29.

A twenty-four hour service has been maintained at the sea ports and airport by the medical and inspectorial staff, and I am indebted to officers of the Port of Bristol Authority, of H.M. Customs and Excise, to the Emigration Officer, and the Airport Manager for their willing co-operation and assistance.

III.—MATERNITY AND CHILD WELFARE.

Dr. A. I. Ross, chief assistant for maternity and child welfare, reports as follows:—

General. (statistics page 126).

The outstanding features of the year were the very large increase in clinic attendances consequent on the rise in the birth rate and the decline in infantile mortality, particularly amongst premature and illegitimate babies.

The rise in the birth rate during the last three months of 1946 became even greater during the first four months of 1947. In the following months there was a gradual decline. At the end of the year the birth rate was still well above the level immediately before the war. This increase resulted in a considerable expansion of work at all types of clinics, especially at infant welfare clinics and post-natal clinics.

The number of patients attending post-natal clinics equalled 40% of the number of the new ante-natal patients. This is an improvement on 1946 when the percentage was 32%. However the proportion should be still considerably larger.

The demand for hospital beds for confinement continued. As the birth rate increased many more patients wished to be admitted to the municipal hospitals than could be accommodated. Admissions were therefore strictly controlled by allotting to each ante-natal clinic a number of maternity hospital beds for each month in proportion to the number of patients attending. Only in special circumstances could this allocation be exceeded. Patients could be admitted only on medical grounds, or because of bad home conditions. Home conditions stated to be unsuitable for confinement were investigated by the district midwife and a report submitted to the supervisor of midwives who adjudicated on each case, recommending a hospital bed where necessary. The report was sent to the clinic medical officer who approved the booking of a bed in such cases. Towards the end of the year it became possible to relax somewhat these strict standards.

Infant Welfare Clinics.

The attendances of children under one year of age increased from 55,875 during 1946 to 76,599 in 1947, and new attendances of children under one from 5,658 to 7,884. Although much of the rise was due to the increased birth rate, the percentage of children under one year who attended the clinics rose from 63% of those born in the city in 1946 to 79% of those born in 1947. Many of the infant welfare clinics were too busy and crowded. Unfortunately the shortage of health visitors—twenty below establishment—limited the number of additional sessions which could be started. New sessions were established at Speedwell Health Centre and Newry

Walk Clinic. A new centre was opened at St. Francis Church Hall, Dovercourt Road, for the Lockleaze, Horfield area. The attendances from the start showed that the opening of the new sessions and centre had been well justified. In addition, negotiations were commenced for the hire of a hall to cover the Avonmouth area. Infant welfare facilities are badly needed in the Inns Court and Ashton Vale Estates, but it had not been possible up to the close of the year to obtain the use of suitable premises.

On the 31st December, 1947, there were 25 infant welfare centres in the city, at which 58 weekly sessions were held.

Two appeals for voluntary workers at infant welfare centres were made in the Press during the year, for many more voluntary workers are necessary.

Bristol Infant Welfare Association and Schools for Mothers—This voluntary association commenced activities with one School for Mothers in 1912. By 1919 the number of schools had grown to 19 and in 1935 to 23. With the opening of the Central Health Clinic and peripheral health centres some of the schools were transferred to the new premises and controlled by the Health Committee. In April 1946, the Association tendered its resignation to the Health Committee on account of the increasing difficulty of obtaining voluntary help. As a result the Association ceased its activities on the 31st March, 1947, and the Health Committee took over the remaining ten schools for mothers as from 1st April, 1947. With one exception the infant welfare sessions were continued in the same premises. The transfer took place smoothly, many of the voluntary workers continuing at the centres. All these centres shared in the increased attendances shown during the year.

Ante-Natal Clinics.

The augmented number of weekly sessions arranged in 1946 was sufficient to cope with the increased attendances in 1947. Kahn and Rh factor tests continue for all patients attending.

Post-Natal Clinics.

During the year post-natal sessions were commenced at Verrier Road Clinic. In the first instance a monthly session was arranged, but attendances very soon warranted a fortnightly session. Increased attendances at Clifton Health Centre for post-natal examinations necessitated a fortnightly session instead of the previous monthly session.

Special Diagnostic Clinic.

This clinic continues to do most useful work in the diagnosis of venereal disease. During the year 326 new patients attended.

Premature Babies. (see also Appendix page 94).

There were 744 premature births notified in 1947, an increase of 173 over the previous year. The reduction in the number of deaths of premature babies has been the principal cause of the striking decline in neonatal mortality. There were fewer deaths of premature babies born at home and in institutions as the following tables show (excluding outside city residents)

	1947		1946	
	At home	At institu- tions	At home	At institu- tions
Number of premature births	190	476	124	378
Number of deaths under one month	13	64	21	88
Percentage	6.8	13.4	17	23.3

The policy of making available hospital accommodation for babies very much underweight will continue, but some born at home may be too ill to move; some of those not so seriously underweight will continue to be cared for in the home if conditions are suitable. In order to improve the knowledge of district midwives in premature baby care arrangements have been made for them to attend Southmead Hospital premature baby unit for a "refresher" course.

Health Visitors.

Although there was an increase in clinic sessions which made further demands on the time of health visitors, the total of 113,513 home visits paid during the year exceeded those of 1946 by 11,685. However, the time spent by health visitors on district work could usefully be doubled. Particular attention continues to be given to ensuring that health visitors are not engaged on duties not requiring a health visitor's qualification and which could therefore be undertaken by state registered nurses or clinic assistants.

Mother and Baby Homes

As from 1st April, 1947, responsibility for maintaining the Mother and Baby Home at Snowdon Road, Fishponds, was transferred from the Social Welfare Committee to the Health Committee. There were fifty expectant or nursing mothers admitted during the year.

Additional accommodation is required for this kind of work and the City Council accepted in principle the establishment of a hostel for twenty unmarried mothers and their children where the mothers could live up to two years after the birth of their babies and go out to work, their children being cared for during the day in a nursery.

Municipal Midwives.

The establishment is 35 midwives. The staff were extremely busy during 1947 with an average of 105 cases per midwife. For the first seven months of the year case rate per midwife was 50% above the Rushcliffe recommendations.

Eight midwives attended the Summer School held at the University of Bristol in September 1947. Four midwives went to Southmead for gas and air training; three passed the examination. Arrangements were made for two or three midwives at a time to attend a postgraduate course of three weeks in midwifery and the care of premature babies at Southmead Hospital.

Four new houses were made available by the Housing Committee during the year.

Transport was supplied for emergencies and for transporting gas and air apparatus. Two cars were employed from 8.30 a.m. to 12.30 p.m. for nursings.

In addition to the pressure of work due to the record number of births, difficulties due to shortage of staff, bad weather and a heavy sickness rate amongst the staff were encountered. The midwives worked extremely well.

Care of Children Apart from their Parents

The City Council set up a special joint committee to deal with the recommendations of the Report of the Care of Children Committee (Curtis Report). It recommended that there should be close liaison and co-operation between the different committees responsible for the care of deprived children. The boarding-out officers of these committees meet monthly to discuss matters appertaining to their duties. Similar conditions of foster homes are required by each committee. Unsuitable homes found by one committee are reported to the others.

In November, 1947, the City Council appointed a Children's Committee.

Nursing Homes

No new registrations were effected during the year, but changes in accommodation were made in several homes, including the Walker Dunbar Private Hospital where midwifery work was discontinued. The total nursing homes registered numbers 23, with accommodation for 142 maternity and 311 other patients.

Day Nurseries

These nurseries were established as a wartime emergency and consequently any adaptations of the private houses requisitioned for nursery purposes were kept at a minimum. Several recommendations were made recently by the inspectors of the Ministry of Health and Board of Education for improvements to raise the standard of the nurseries, but owing to difficulties in labour and material, together with high costs, only part of the work has been completed. Improved sanitary arrangements, hard surface playing areas to allow the children more time out of doors, and equipment for recreational and educational purposes have been provided.

Much would have to be spent on decoration of the nurseries before ideal conditions existed, but economy demands that consideration be given to essentials only.

There is no change to report in either the number of nurseries (13) or the accommodation available (520 places) the Health Committee being responsible for

	No. of places
23/25 Southmead Road	40
The Paragon	25
264 Wells Road	30
17 Oakfield Road	35
Roxburgh	40
Dowry Square	25
141 Coronation Road	50
91 Ashley Road	50
Granby House	45
Whitehall Road	30
Knowle Park	50
Monks Park Avenue	50
St. Andrews Road	50
	520

Attendances throughout the year have averaged 86% of the places available. Excluding the month of August when 15% of the children were absent on holiday the average attendance for the remaining eleven months was 90%.

The waiting list has increased throughout the year, and is now equal to 35% of the places available.

During the year 428 children have been discharged, and 449 new children admitted.

Residential Nurseries

Residential nursery accommodation at present consists of the following establishments, the number of beds available indicated against each.

Downend Babies' Home	55
Frenchay Lodge	28
Frenchay House	20
Frenchay Park	50
Nore House, Portishead	30
	183

The admissions to these nurseries during 1947 may be classified as follows:—

Illegitimate children	23
Children awaiting adoption	4
Mothers going into hospital for tuberculosis or other illness	104
Mothers' confinement	144
Social welfare cases	53
Debility and other medical reasons	11
	339

Downend Babies' Home

Dr. Greta Hartley who is responsible for the medical supervision of the Babies' Home, Downend, reports as follows:—

Admissions to the Babies' Home during 1947 showed a considerable decrease to 98, this being due to the following factors:—

1. Limitation of admissions due to shortage of senior nursing staff.
2. Admissions were suspended for one month owing to two cases of whooping cough in the nursery which could not be accommodated in Ham Green Hospital.
3. The increased number of long stay cases in the Home.

Particular difficulty has been experienced with the admissions of very young babies, beds for which are in constant demand. Many more could have been admitted had more experienced nursing staff been available.

The general health of the children has been good on the whole, but there has been an increase of minor sepsis due to the larger number of pupils dealing with the children under the new training scheme commenced last year. During the year 17 children had chicken pox; three had whooping cough. Three children were transferred to Southmead Hospital; one with fractured arm, two for investigation—all made good recoveries. Three children were transferred to Ham Green Hospital—two with gastro-enteritis, one with pneumococcal meningitis—one recovered—two are still in hospital. One child was transferred to Frenchay Sanatorium with tuberculosis.

Nursery Nurses College

During 1947, 17 candidates entered for the National Nursery Certificate; 14 were successful at their first attempt, and the other 3 at their second attempt.

Frenchay Lodge, Frenchay House, Frenchay Park, and Nore House, Portishead.

Dr. Alison Craig who is responsible for the medical supervision of the above nurseries, reports as follows:—

The number of new children admitted to Frenchay Lodge and Frenchay House Nurseries was 241 in 1947, compared with 221 in 1946. At Frenchay there were two major outbreaks of sonne dysentery in the spring and autumn, necessitating the closure of this nursery for some weeks and holding up the admission of new cases. All children made a good recovery. One case of measles occurred at Frenchay Lodge, and three of whooping cough at Frenchay House, but there was no spread of infection in either case. In other respects the health of the children was improved and maintained.

At Frenchay Park, Ward 14 of Frenchay General Hospital continues in temporary use for nursery purposes, and Nore House, Portishead, remains for the reception of long-stay children transferred from the Frenchay nurseries. Fifty-one children were admitted in 1947 compared with 30 in 1946. Delicate children particularly in need of a prolonged stay were sent to Nore House where they benefited from the fresh sea air and more open surroundings.

During 1947, all children in respect of whom a parent's permission could be obtained, were vaccinated against whooping cough.

The outstanding need in the nurseries, particularly among the 2-5 year old children, is for improved educational facilities and supervision of constructive play. New appointments of educational wardens were agreed for both Frenchay House and Nore House, and a considerable amount of educational equipment was ordered for each. It is considered that the new arrangements will considerably benefit the children in these nurseries.

Male Sterility Clinic.

Dr. Irving-Bell reports:—As has been previously mentioned in details given in my report for last year, this clinic exists mainly for the purpose of investigating the fertility of males whose marriages have proved childless.

There was a slight decrease in the number of new cases seen—101 (112 during 1946) but an increase in the total attendances—245 (211 during 1946). A notable feature was the increase in the proportion of cases referred to by general practitioners; this is shown in the following analysis:—

(Figures in brackets are percentages for 1946.)

Referred by M.Os. of female sterility and other clinics	39%	(57)
„ „ general practitioners	38%	(22)
„ „ marriage guidance centre (voluntary organisation)	14%	(9)
„ „ self (patient's own request)	7%	(9)
„ „ health visitors	2%	(0)
„ „ probation officers (courts)	0%	(3)

Number of men found to be sterile or infertile was 50% of those tested. Number of men seen at the clinic for examination and advice for conditions other than fertility was 19% as against 10% for 1946; these were cases of impotence and other abnormalities of sexual function, and for premarital examinations.

It has become apparent that a total attendance of 245 is near the maximum number which can be dealt with efficiently when working two sessions a week.

Every patient is given a full clinical examination with anthropometric assessment, routine advice and treatment.

Arrangements are made for a semen analysis; every medical practitioner is sent a confidential report on the patient, much of which is of an intimate and personal nature; a confidential report is also passed to the medical officer conducting the female sterility session for cases referred from that clinic; all patients are informed by letter of the result of the semen test, and advised when an appointment can be made for further examination.

Female Sterility Clinic.

Dr. Boxall reports:—This clinic exists for the investigation and treatment of women who are absolutely sterile or relatively so, *i.e.*, when one or more previous pregnancies are not followed by a subsequent one.

Attendances during 1947 numbered 74 new cases and 246 old cases, a total of 320. The number of pregnancies occurring in 1947 was 15.

One session of two hours is held weekly at which two or three new cases and about four or five old cases are seen. Full physical examination is given, with special reference to the genital organs: treatment of any obvious defect is undertaken, but where none appears to exist, further specialised examination including X-ray is arranged in conjunction with the consultant staff of the Bristol General Hospital. An examination of the husband is also arranged with the medical officer of the male sterility clinic.

Patients are followed up at varying intervals according to the type of treatment undertaken.

Advice is also given about the various physical marital problems.

While each patient is given a paper reminding her to report a pregnancy should it occur, there is reason to think that patients cease attending because of a pregnancy without notifying the clinic staff. The number successfully treated is probably higher than appears.

Unmarried Mothers' Welfare.

The welfare officer, Mrs. Stott, reports as follows:—

During the year, 430 applications in respect of an illegitimate child and mother were received.

321 were in respect of a first illegitimate child.

81 were in respect of a second illegitimate child.

Of the remaining 28 cases, 12 were women who were co-habiting. In some cases, the parties had lived together for a number of years, but were unable to marry because one or other was not free to do so.

At the end of 1946, there were 94 cases outstanding where the child had not been born, making a total of 524 cases to be assisted. Arrangements were made as follows:—

Admitted to Hospital for confinement	280
Admitted to Hospital immediately after birth of child	10
Born at Mother & Baby Home	17
Midwife attended	60
Assistance in confinement not sought	47
Applications withdrawn	19
Child not yet born	91
	524

In reviewing the cases dealt with during 1947, two features noted are the greater sense of responsibility shown by the young expectant mother, and that a number of them are well educated girls from good homes.

It can be said that in most cases where adoption was desired, the decision was made, having regard to the child's welfare. It cannot be denied that there are a number who seek only to rid themselves of responsibility through any channel available.

Of the mothers dealt with during the year, 60% returned home with the child. In many instances this followed a stay in a Mother and Baby Home. Often this period gave time to break down prejudices, and unhappy relationships in the girl's home, thus making possible for the child, a normal upbringing as a member of the family.

One hundred and thirty two girls were admitted to Homes during the year, most of them staying an average period of three months with the baby. This proves to be a good foundation on which to commence the work of rehabilitation.

The difficulty of those cases where there is no home for the mother and baby when the time comes to leave the Mother and Baby Home persists, and is a cause of great discouragement. The need for a hostel for mothers and babies cannot be exaggerated. With no such hostel to prevent the necessity of separating mother and child, and very limited residential nursery accommodation, where a mother can visit her child regularly, many problems commence at a time when the mother should return to work.

With few exceptions, help to prove the paternity of the child, and obtain payment is gladly accepted by the mother. At the end of 1946, there were 289 cases where affiliation work was incomplete, which, with 430 fresh applications received during the year, made a total of 719 cases to be dealt with.

The following is an analysis of the work:—

Affiliation Orders obtained	39
Agreements	106
Information laid	16
Payments direct to girl	3
Child adopted	45
Married to putative father	32
Co-habiting	25
Married to another man	5
Putative father died	1
Putative father not traced	10
Putative father not known	18
Putative father left country	15
No action possible—married woman, not entitled to summons	3
No action possible—stillbirth, abortion, or child died	8
No action possible—girl certified mental defective	2
No action possible—applicants refused	8
No corroboration	10
Left area	24
Application withdrawn	11
Incomplete at end of year	338
	719

Experience has shown that to assist in obtaining an affiliation order or agreement is but the beginning of the help needed by the mother. The continued assistance and advice in enforcing payments, and acting as intermediary, is of great importance.

During the year, help was given in 233 cases to obtain arrears, or an increase in the amount of the Order.

The sum of £14,409 received under agreements or orders was disbursed as follows:

£12,809	...	Paid to or on behalf of the individual concerned.
1,307	...	Repaid towards maternity costs or maintenance of a child at a nursery.
293	...	Repaid to Social Welfare Committee.
£14,409		

In matrimonial cases,

17 Maintenance Orders were obtained, eight of these being in respect of children under the Guardianship of Infants Act.

In 10 cases, reconciliation was effected.

Tutorial Section.

Miss W. G. Gibb, sister tutor, who is in charge of the tutorial section with accommodation at 36 Queen Square, reports as follows:—

The standard of work in this section has been maintained during the year.

Student Health Visitors Training Course.

Twenty students completed the six months training from September, 1946—March, 1947. Of these, six were appointed by Gloucester County Council and by arrangement were permitted to carry out the routine practical work in the County area adjoining Bristol under the supervision of the Superintendent Health Visitor of Gloucestershire, the special work and visits of observation and attendance at lectures, tutorials and study being carried out in Bristol.

Twenty presented themselves for the examination of the Royal Sanitary Institute held in March and seventeen were successful. The three failures have since qualified, two in June and the third in July.

Nursery Students Training Course.

There are 122 students in training for the National Nursery Examination, 60 first-year students and 62 second-year. These are divided as follows:—

Downend	-	-	22 First-year.
			26 Second-year.
Health Dept	-	-	6 First-year.
			6 Second-year.
(appointed to day nurseries)			
Education Dept	-		32 First-year.
			30 Second-year.
(appointed to nursery schools)			

All students attend Brandon Steep training centre for lectures and demonstrations on four days alternate weeks, the rest of the time being spent in practical work in the nurseries and nursery schools.

The students in the residential nurseries obtain all their training there with the exception of three months in a nursery school.

The students appointed to day nurseries spend three months in the residential nurseries and three months in a nursery school, the rest of the time is spent in the day nursery.

The students appointed to nursery schools spend six months in the residential nurseries for experience with young babies age 0-6 months, and three months in a day nursery to complete the nine months' training in the 0-2 group; the rest of their time is spent in the nursery school.

The close co-operation existing between the Health and Education Departments has enabled the necessary planning and arranging of the practical work to be carried out smoothly, and has undoubtedly contributed to the success of the students.

Pre-Nursing Course for Hospital Nurses—Clinic Assistants.

A certain number who are unable to attend St. George School for the pre-nursing course owing to short-stay in the department, attend Queen Square weekly for lectures in anatomy, physiology, and hygiene, and practical instruction is given in bed making, bandaging and urine testing.

Health Education.

There have been several requests for the teaching of mothercraft and allied subjects from clubs, guilds and parent teacher associations. Requests for visits of parties to the Central Health Clinic from training colleges and the University have been as frequent as previous years, and appear to have been much appreciated.

Lectures and Demonstrations at Ante-natal and Infant Welfare Clinics.

Demonstrations in the care and bathing of babies (where stress is laid on natural feeding) are being given in nearly all ante-natal clinics.

The lectures at infant welfare clinics are being maintained and appear to be appreciated by mothers in the majority of clinics.

IV. PREVALENCE AND CONTROL OF INFECTIOUS AND OTHER DISEASE.

Diphtheria.

For the first time since records have been kept there has been no death from diphtheria in Bristol during the year.

The position in regard to the incidence of the disease is, however, less satisfactory. For the last three years I have been able to report new low records in the incidence of diphtheria, which halved the figure for the existing record until in 1946 only 38 cases of this disease were notified. During 1947, however, an increase occurred in the number of cases to a total of 46. Numerically, this increase is relatively small but it is significant that it is not due to any particular outbreak and coincides with a decrease during the past year in the number and percentage of children who received immunising injections. This must be taken as evidence of the vital need for maintaining the highest possible percentage of children immunised against diphtheria.

The numbers of children immunised since 1940 are as follows:—

		Full Course		Reinforcing injections
		Under 5 yrs.	5—15 yrs.	5—15 yrs.
1940	...	609	1,876	—
1941	...	2,333	7,146	—
1942	...	3,896	6,377	—
1943	...	4,854	6,430	3,423
1944	...	4,526	2,270	4,651
1945	...	5,183	1,867	5,177
1946	...	4,941	2,899	6,592
1947	...	5,137	1,093	3,041

Of the 9,271 children who received immunising injections during the past year 4,740 were treated at nurseries and clinics, 3,329 at schools, and 1,202 were treated by general practitioners in the Health Department's scheme for free immunisation.

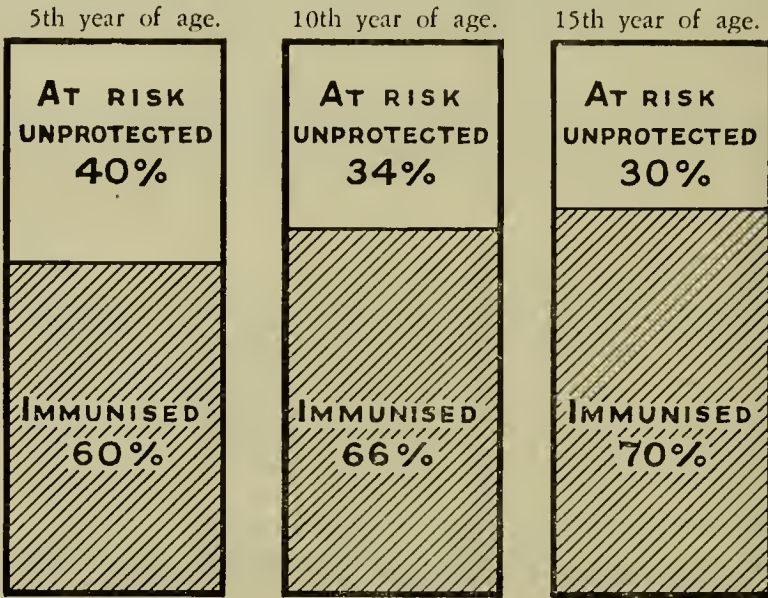
The high protection rate which has been enjoyed by the child population in the city during the past few years is due entirely to the wide acceptance by parents of immunisation for their children. Reliance on mistaken belief that because the incidence of diphtheria has been so low there is therefore now no need to continue with immunisation, might well lead to a disastrous increase in the number of cases. In view of the extreme shortage of nursing staff at the isolation hospital, there is no guarantee that hospital beds would be available to meet any increase in the number of diphtheria patients.

However, the basis of the campaign for immunisation has been the building up of an informed opinion amongst the public and the facts and diagrams overleaf illustrate the effect of the campaign in securing a high percentage of immunised children and of its results in the reduced incidence of the disease.

The Campaign.

Over 50,000 of the Bristol children at present under 15 years of age have been immunised. Over 100,000 immunising injections have been given in the past five years.

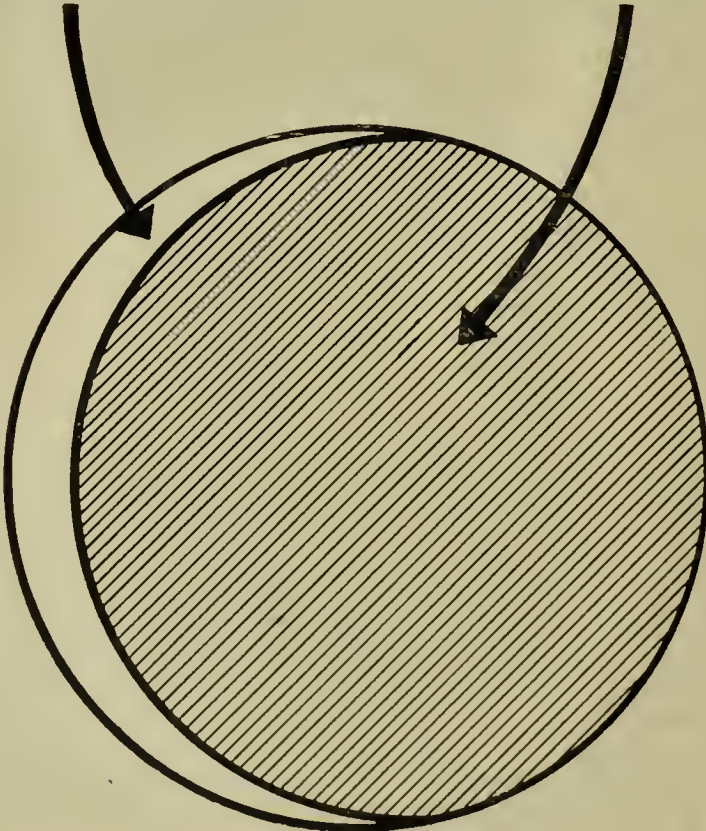
The following diagram shows the approximate percentage of children immunised compared with the percentage unprotected by immunisation in three age groups at the end of 1947.

*The Achievement.*

1947 brought near the total eclipse of diphtheria in Bristol.

46 cases of diphtheria
(no deaths) in 1947

Compared with an average of
approximately 1,000 cases (50
deaths) per annum in pre-
immunisation years.



Scarlet Fever.

For the second year in succession no death has been recorded in Bristol from this cause, 1946 being the first such year since records have been kept.

At least 100 fewer cases of scarlet fever came to the notice of the Health Department in 1947 (463 compared with 567) than in 1946. This is a relatively low figure of incidence for this disease, but there has been an upward trend in the last quarter of the year.

Poliomyelitis.

In common with the rest of the country, Bristol experienced a considerable increase in the incidence of this disease during 1947, thirty-one cases having been reported and confirmed compared with seven in the previous year and compared with 28 in 1938, which was the highest previously recorded. Two deaths in Bristol were attributed to this cause during 1947; one a Bristol resident, one a non-resident.

A full report on the Bristol experience of this disease has been compiled by Dr. R. C. Wofinden, Deputy Medical Officer of Health and is included in this report, Appendix IX, page 104.

Erysipelas.

The low record number of cases of erysipelas (82) notified in 1946 has been followed by an increase to 144 cases in 1947, which is about the average for the few preceding years.

Malaria.

Eight cases were notified in 1947 compared with 23 in the previous year.

Dysentery.

The incidence of dysentery declined steadily during the year, a total of 83 cases being notified compared with 114 in the previous year and 386 at the peak in 1945. This reduction has coincided with a campaign conducted by the Health Department for cleanliness, particularly in regard to the handling of food. This campaign will be intensified in the coming year.

Measles.

The increasing incidence of measles reported at the end of 1946 continued into 1947 when 3,600 cases were notified during the first two quarters, the total for the year finally being 3,865 compared with 303 in 1946. Three deaths resulted.

Whooping Cough.

Seven hundred and forty-seven cases were notified in 1947, which is 42 more than in the previous year. There were four deaths from this cause (four in 1946). The increase was mainly due to an increase in the number of infections towards the end of the year.

Experiments to find a satisfactory whooping cough vaccine are being conducted by the Medical Research Council, but these have not yet reached a stage which would warrant a recommendation to embark on a scheme for mass immunisation against this disease.

Respiratory Diseases other than Tuberculosis.

The year's figures show an increase, which occurred during the first quarter of the year, in the number of deaths from bronchitis and pneumonia, but there were fewer influenza deaths. Notifications of acute primary pneumonia and influenzal pneumonia have been fewer throughout 1947 than in the previous year.

Tuberculosis (all forms).

A total of 521 cases of pulmonary tuberculosis has come to the notice of the department during the year by notification or otherwise; this compares with 598 during the previous year, which was the highest number since 1931. The average for the immediate pre-war years was approximately 500 cases per annum. Deaths from this cause in 1947 numbered 241. There were 236 in 1946.

Cases of non-pulmonary tuberculosis totalled 95 compared with 93 in the previous year. Deaths within the city, at a total of 56 (which included 21 non-residents), exceeded the corrected 1946 low record by 5.

TUBERCULOSIS. (statistics page 121).

Dr. C. J. Campbell Faill, senior chest physician, reports as follows:—

The work of the tuberculosis section has continued during 1947 with little variation. In May however, a small clinic was opened in Southmead Hospital. This has proved most useful and has been a great convenience to patients living on the north-western side of the city, the area served including Avonmouth, Shirehampton, Sea Mills, Horfield, and Bishopston.

There has been a slight increase in the number of deaths from pulmonary tuberculosis in 1947 and the extent to which this has been due to deaths amongst young adults (aged 15-25 years) is indicated by the figures in parenthesis in the following table:—

	Pulmonary	Non-pulmonary
1938	231 (45)	40 (13)
1945	252 (37)	54 (11)
1946	236 (35)	30 (5)
1947	243 (41)	36 (6)

These young adult cases are among the most distressing of all. It would appear that their resistance is lowered by starting work while still growing, and in addition taking advantage of summer time to play games much longer in the light evenings. Alternatively, that not having been partially immunised by a slight infection in childhood, they are overwhelmed when they meet a strong infection. Whatever be the explanation, the great majority steadily decline in health in spite of all treatment. Occasionally one gets gratifying results with injections of gold and sanatorium treatment, but at the best they are left with permanent damage to the lungs and nearly all show a tendency to sudden relapse. Possibly streptomycin may have some effect on this type of case and when larger supplies are available it certainly should be tried. Almost certainly B.C.G. vaccination of all school leavers who fail to react to tuberculin will make a considerable difference.

The total number of new patients examined for diagnosis has again declined, 2,253 in 1947 compared with 2,593 in 1946, and 2,684 in the year before. This is certainly the result of the radiological department's activities in x-raying and reporting on cases sent by general practitioners, thus eliminating a number of persons who would otherwise be referred for examination. The number of cases x-rayed and reported on by the radiologists to general practitioners was 4,517 (2,721 in 1945). This reduction in the number of new patients examined has enabled increased personal attention to be devoted to the definite cases, the number of re-examinations in 1947 being 10,944 compared with 9,718 two years ago.

Although mass radiography has not added appreciably to the total number of notified cases, it is of very great value in discovering quite unsuspected cases of tubercle and of other diseases of the lung. Just recently the mass radiography unit discovered a lung cancer in such an early stage that it was causing no symptoms of any sort and was early enough for a successful operation to be performed.

The thoracic surgery unit has continued to be of great value to us by cutting adhesions in cases of artificial pneumothorax and by performing thoracoplasties. This usefulness will be considerably increased when female beds can be added to them.

The number of attendances for the refilling of artificial pneumothorax has again increased:—

1938	...	...	653
1945	...	...	2,350
1946	...	...	3,086
1947	...	...	3,641

The most striking advance in 1947 has been the treatment of lupus by calciferol in massive doses. The results have been extraordinarily good and one can confidently hope that a steadily decreasing number of persons will be seen with faces hideously disfigured by the scars of healed lupus.

Financial Assistance and Welfare Arrangements (statistics page 134).

Mr. C. L. Bryant, who is the tuberculosis welfare officer and honorary secretary of the Bristol Tuberculosis Voluntary Care Committee, reports that under the Government scheme of financial assistance for cases of pulmonary tuberculosis undergoing treatment recommended by the tuberculosis officer, 425 applications were received and of these 374 were granted.

The average weekly disbursements were:—

Maintenance allowances	£340
Discretionary allowances	£20
Special payments	£10
Maintenance allowances (Social Welfare scales)	£108

The last item refers to allowances paid under an arrangement whereby patients ineligible under the Government scheme are paid allowances on behalf of the Social Welfare Committee.

Extra Nourishment.

Extra nourishment by way of two pints of free milk per day is granted, subject to an income limit, to patients suffering from tuberculosis.

During the year 190 new grants were made and the average daily number of patients in receipt of free milk was 214.

Rehabilitation.

Sixty-six patients were referred to the Ministry of Labour for training or suitable employment; 27 were found whole-time work, two part-time work, and two commenced work at training centres.

After Care Work.

The Voluntary Care Committee has continued to assist patients in various ways, such as case allowances and grants of clothing, bedding and footwear, 172 patients or dependants being assisted in this way during the year.

The Committee has continued the classes of occupational therapy established during 1946, and an average of 15 patients attend each of three two-hour sessions held each week. These classes are proving to be of great value to patients who are well enough to attend but unfit to return to normal work. The handicrafts taught include leather work, handbags, slippers, gloves, embroidery, rug making, and weaving on a small hand loom. Patients who are unable to attend the classes are visited at home, given instruction in handicrafts that are within their capacity to undertake, and provided with the necessary materials.

Thoracic Unit.

As mentioned in my report for last year, the thoracic unit is now established at Frenchay General Hospital.

Mass Miniature Radiography. (statistics page 135).

A full report on the work of the Bristol mass miniature radiography unit by Dr. E. E. Mawson, director, is included in Appendix VIII, page 97. The report includes tables showing an analysis of the number of cases examined throughout the year.

Cancer Scheme—Bristol Region (statistics page 138).

My report for 1946 included some notes on the inception of the scheme made under the Cancer Act, 1939. At the beginning of the year a report was received that there was a considerable waiting list for surgical treatment of cancer cases and the medical adviser recommended that Cossham Memorial Hospital be included in the cancer scheme, so that such treatment could be given at that hospital with a view to reducing the number of cases awaiting treatment. Accordingly application was made to the Minister of Health for the inclusion of this hospital in the scheme, the cost of treatment thus being authorised for inclusion in the claims for Government grant.

The question of providing conveyance by ambulance between home and hospital where the patient was suffering from cancer was considered by the Health Committee. The Committee decided to exercise the power which local authorities have to provide the cost of such conveyance and the medical officer of health was authorised to provide ambulance transport for cancer cases where he considered this to be necessary.

Acute Rheumatism.

In September, 1946, the Rheumatic Fever Committee of the Royal College of Physicians decided to recommend to the Ministry of Health that "acute rheumatism" should be notifiable in several parts of the country where the existing facilities for diagnosis and treatment were of a high standard. In making this recommendation the Committee had in mind that the notification of acute rheumatism continued for several years in two or three large areas might provide valuable information hitherto impossible to obtain on the following aspects of rheumatic fever: (a) the trend of incidence of new cases; (b) the relative incidence of new cases in different areas, and in different types of area, for example, urban and rural; (c) association with genetic factors; (d) association with social and environmental factors, for example, home conditions and housing.

This Committee also recommended that in any regulations made for the purpose of notification the definition of acute rheumatism should comprise valvular heart disease of rheumatic origin, thus making it possible to include children affected by rheumatic fever before as well as after the introduction of notification. In this way clinical material would be made readily available for follow-up studies on the recurrences, prognosis, etc.

The city of Bristol was specially selected by the Rheumatic Fever Committee as an area in which acute rheumatism might temporarily be made compulsorily notifiable for the following reasons: It is able to fulfil the criteria desirable for critical observation of the value of compulsory notification in dealing with this disease, i.e., it has available an adequate treatment and supervision scheme already in being, together with progressive health and school medical departments, also a physician (Professor C. Bruce Perry) experienced in dealing with rheumatic fever and heart disease. Further, the city of Bristol forms an area of size and social composition particularly suitable for comparison with another of the selected areas, namely, the city of Sheffield.

Accordingly, in June, after consultation with Professor Bruce Perry and the University, the Health Committee informed the Ministry of Health of their willingness to co-operate in a trial of compulsory notification of acute rheumatism in Bristol. The Ministry of Health therefore issued an order making acute rheumatism in persons under 16 years of age notifiable in a number of areas including Bristol, to come into operation on the 1st October, 1947.

The order states that when a case of rheumatism is notified the medical officer of health shall make such enquiries and take such steps as are necessary or desirable for notifying the source of the disease, for removing conditions harmful to the patient, and for arranging for the treatment of the patient.

The scheme involving notification, treatment and investigation, drawn up in consultation with Professor Bruce Perry, is as follows:— (1) Notifications are received at the Central Health Clinic; (2) As this notification is temporary, for the purposes of investigating the disease Professor Bruce Perry has undertaken to investigate the clinical features of each case notified. If a medical attendant considers that the case requires hospital treatment urgently arrangements are made at once for admission to hospital under Professor Bruce Perry; (3) Hospital treatment will be provided at the financial responsibility of the City Council either under the Education Acts for school-children resident in Bristol and attending maintained schools, or under the Public Health Acts for other children resident in Bristol and dealt with under the regulations; (4) Further investigation of notified cases will be undertaken in order to provide information on the aspects of rheumatic fever referred to in the first paragraph of this section.

To complete the investigation therefore, the services of a trained social worker—a health visitor—to visit the homes and record the social factors, and the services of a sanitary inspector to record the type and state of the houses occupied by the patients have been arranged.

Appendix I.

PORT HEALTH SERVICES.

Medical Inspection and Sanitary Circumstances.

By Dr. D. T. RICHARDS, Chief Assistant Port Medical Officer.

This Report is prepared, as in 1946, on the lines indicated in Memorandum 302/S.A. issued by the Ministry of Health to Port Health Authorities, and the narrative is referenced where appropriate to statistical tables in Appendix XI, pages 147-154.

General.

A port health department is not merely concerned with the detection and control of smallpox, typhus, cholera and other dangerous communicable diseases. Other diseases, more insidious in onset and quieter in their manifestations, but of greater social significance, find a rich soil amongst seafarers. This latter group of diseases, of which tuberculosis is an example, always flourishes best where there are defects in personal and environmental hygiene, and also, therefore, claim the attention of those whose concern is marine sanitation.

Diseases such as smallpox or cholera, having gained access via a seaport or an airport, can be effectively countered by the efficient application of prescribed public health measures. An epidemic of smallpox gains momentum for a time, and subsides. The nation's problem is a temporary one and, with effective port control, should never occur.

It would be well if the spread of tuberculosis amongst a population could be made to yield so promptly to planned counter-attack, but with this disease the progress is one of slow infiltration into the community. The national problem is a more lasting one and logical measures of control include the early recognition and treatment of all spreaders of the disease, and the eradication of conditions which might favour its development and spread.

Within the ranks of the Merchant Service lies a fertile source of infection which contributes, in no small measure, to the spread of this disease ashore. The high incidence of tuberculosis amongst seamen is a matter for concern; the problem is worthy of examination.

It may yet be premature to give an accurate picture of peace-time trends within the Merchant Service. Repeated crew examinations throughout the year indicate, however, that the general health of crews, so well preserved during the war years, is being maintained. And yet, from time to time, there is brought to light evidence that another young Merchant Navy recruit has fallen victim to tuberculosis within a year or so of recruitment. More ominous in its significance is the occasional discovery of the more elderly sailor with open tuberculosis, giving a history of chronic cough of many years' duration. The relationship between cases of this kind is quite apparent, and has its parallel in other services. Clear evidence that the direct spread of tubercular infection occurs under present-day conditions at sea is available within the records of this department.

Overcrowding, as in the slum areas, plays a leading part in the transmission of this disease. Fatigue and exposure, both sometimes inseparable from working conditions afloat, are important predisposing conditions. Alcoholism, the habit of spitting, and poor ventilation are other factors conducive to the development of pulmonary infection. Under such circumstances the chronic spreader of tubercle bacilli inevitably claims a toll of victims amongst his shipmates—and the further transmission of the disease to their associates ashore may only be a matter of time.

Nevertheless, there are welcome indications that increasing attention is being given by shipowners to the comfort and well-being of their crews. Many large firms are giving the lead and extensively improving the living accommodation in their ships. Spacing, ventilation, sleeping and messing arrangements are being adapted to conform to modern standards. Progress, since the days when "bilge water was considered part of the trade" and "when there was no heating except for the men's bodies—hence the more crowded, the more comfortable" has indeed been slow, but, at last, there is evidence of a speed up, and living conditions in newly constructed vessels are fast approaching the ideal. Environmental defects in ships are thus being removed, but other reforms long overdue must be carried out if the fullest advantage of this benefit is to be obtained.

First, there is need for a more stringent medical follow-up of seamen after entry into the Service, and in this respect mass radiography would be of incalculable value. The medical examination of seamen before joining a ship is sometimes too perfunctory. Sailors, employed in one of the nation's largest single industries, need a co-ordinated medical service akin to those of the fighting services, and this would be best operated in close conjunction with port health officials.

Next, there is need for more extensive health education amongst officers and crew of the Merchant Service. The ship's officer is given training in the principles of first-aid, but receives no instruction in the elements of marine hygiene; this could well be remedied. Discipline amongst the crew in matters of hygiene is poor, and sometimes absent. It should be tightened up. New vessels of high standard in other respects are often found with defects clearly indicative of slovenliness and ignorance of the fundamentals of hygiene. For example a pantry containing exposed food swarming with flies, might be regarded by the crew with complete indifference. Water closets are sometimes seen to be ill-maintained and filthy. Ventilators might be wilfully plugged with sacking with resultant air stagnation. There is scope for the appointment to every vessel of an officer trained to undertake responsibilities in matters of medical treatment and hygiene and specially designated to the task. At present these highly important duties are, as often as not, passed on to the chief steward whose sole qualification might be the possession of a Board of Trade cook's ticket!

The mere re-housing of seamen is not enough.

Vessels entering the Port during the Year (See Tables).

The number of arrivals from "Foreign" and the tonnage of cargoes that were handled at Bristol, Avonmouth and Portishead Docks during 1947 show an appreciable increase compared with the corresponding figures for 1946. This is very encouraging, particularly when it is realised that the import restrictions imposed during the year might well have had an adverse effect on the annual trade returns of the port, and especially since Bristol deals almost exclusively with imported cargoes.

During the year 708 foreign going merchant vessels were boarded on arrival—an increase of 143, or approximately 25% above the figure for such vessels during the previous year. A high proportion of these were from ports and seaboard classified as being infected with one or more of the major infectious diseases. Fifty-five were from plague-infested ports.

No major infectious illness entered the port during this period but, as stated in previous reports, daily visiting by port health inspectors, thorough inspection for rat evidence, trapping and fumigating when necessary, and the use of rat guards on moorings to prevent the passage of rats from ship to shore are now routine precautions and were in operation in respect of all vessels from infected or suspected ports.

The port medical officers dealt with 30,076 passengers and crew, of whom 739 were referred to clinic, hospital or to Federation doctor for treatment or observation.

Foreign ports from which vessels arrive.

- EUROPE, North—Abo, Amsterdam, Antwerp, Arronanches, Burea, Delfzyl, Gdynia, Gefle, Ghent, Gotenburg, Granville, Greaker, Hamburg, Helsingfors, Hernosand, Holmsund, Hommelvik, Hudiksvall, Jakobstad, Kaleningrad, Karlmar, Karlochan, Karlsborg, Kasko, Kotka, Kristiansand, Lubeck, Nemours, Norrkoping, Norrsund, Oskarshamm, Oslo, Pitea, Raumo, Riser, Rotterdam, Sarsborg, Skien, Skoghall, Skutskar, Stettin, Stockholm, Sundsvall, Ternauzen, Toppila, Trondheim, Valdemars Vik, Varberg, Vifstavarv.
- South—Algeceras, Barcelona, Bilbao, Bordeaux, Brest, Cadiz, Cartagena, Catania, Cherbourg, Cyprus, Genoa, Gibraltar, Istanbul, Leghorn, Le Havre, Lisbon, Malaga, Malta, Marseilles, Messina, Nantes, Naples, Oporto, Piraeus, Rouen, Santander, Seville, Spezia, Tournai, Charente, Trieste, Valencia.
- AFRICA —Accra, Alexandria, Algiers, Bathurst, Beira, Capetown, Casablanca, Dakar, Durban, Freetown, Gandia, Lagos, Lorenzo Marques, Mombasa, Oran, Port Elizabeth, Port Said, Port Sudan, Sfax, Sierra Leone, Sousse, Suez, Takoradi, Tiko, Tripoli, Warri, Winneba.
- ISLANDS—Canary, Cape Verde, Mauritius.
- ASIA —Abadan, Basra, Bahrein, Bangkok, Bombay, Calcutta, Chittagong, Chochin, Haifa, Izmir, Jaffa, Karachi, Madras, Marmagao, Ormuz, Penang, Port Swettenham, Rangoon, Saigon, Shanghai, Singapore, Vizagapatam.
- AMERICA, North;
- CANADA —Fort Churchill, Halifax, Montreal, Quebec, St. John—M.B., Sorel, Sydney—C.B., Three Rivers, Vancouver.
- NEWFOUNDLAND—Botwood, St. John's, Wabana.
- U.S.A. —Baltimore, Baton Rouge, Baytown, Beaumont, Boston, Brownsville, Charleston, Corpus Christi, Galveston, Houston, Lake Charles, Mobile, New Orleans, Newport Mews, New York, Norco, Norfolk, Philadelphia, Port Arthur, Portland Maine, Portland Oregon, Sabine, San Francisco, San Pedro, Savannah, Texas City, Wilmington.
- Central—Antigua, Aruba, Barbados, Carapito, Cuba, Curacao, Demerara, Kingston, Maracaibo, Panama, St. Kitts, Trinidad.
- South—Bahia Blanca, Buenos Aires, La Plata, Montevideo, Patagonia, Punta Arenas, Rio de Janeiro, Rosario, San Nicholas, Santos, Zarate.
- AUSTRALIA —Adelaide, Albany, Brisbane, Cairns, Freemantle, Geelong, Hobart, Melbourne, Newcastle, Port Pirie, Rockhampton, Sydney.
- NEW ZEALAND —Auckland, Bluff, Christchurch, Dunedin, Napier, New Plymouth, Wellington.

Water Supply.

For the purposes of the Port generally, water supplied by the Bristol Waterworks Company is available to all premises in the dock area.

For the purposes of shipping, fresh water mains carrying the Bristol Waterworks supply, are laid on to the quayside berths.

Precautions are taken against contamination of standpipes and hoses used to convey water from the quayside mains to ships. They are regularly flushed out and cleansed; water is allowed to run free for a few minutes before being delivered to the ship's tanks; samples are periodically submitted for chemical and bacteriological analysis.

Only one water boat is available and this is used at the City docks. The Port Health Inspector periodically examines this boat, and supervises when cleansing and cement washing becomes necessary.

Port Health Regulations, 1933 and 1945.

Declarations of Health.

Under a local arrangement with the Pilotage Board, Declaration of Health forms are handed to the Master by the Channel pilot in the Barry Roads. In most cases, these forms are completed for delivery to the port health inspector boarding the vessels on arrival.

Boarding of vessels on arrival, notification and mooring.

All vessels, coastwise or from foreign, are boarded at the locks on arrival by the port health inspector on tidal watch. All vessels from foreign, and all vessels reporting sickness which arrive from foreign via a coastal port are boarded by the medical officer. "Infected" or "Suspected" ships are boarded by the medical officer and port health inspector at Walton Bay from a tug chartered for this purpose.

Arrangements exist for the notification to the Authority of inward vessels requiring special attention (wireless messages, land signal stations, information from pilots, customs officers, etc.). Wireless messages, giving the name of the ship and the expected time of arrival, are relayed to "Portelth," Bristol, if there is any circumstance on board requiring the attention of the medical officer. The messages are forwarded from the Central Health Clinic to the port medical officer and the senior port inspector for appropriate action. Visual signals for transmission to the port medical officer may also be directed to the land signal station at Walton Bay. In addition, masters of foreign-going ships approaching the port are required to hoist whichever of the quarantine signals is appropriate as set out in the 1931 International Code of Signals for visual signals.

Mooring stations, designated under Article 10 are as follows:—

Inner—	
Avonmouth	(a) Royal Edward Dock—North Wall.
	(b) Old Dock—Dolphin Buoy.
Bristol	Railway Wharf.
Portishead	No. 1 Shed.
Outer—	
Avonmouth, Bristol and Portishead Docks—Walton Bay.	

There are no standing exemptions from the provisions of Article 14 at this port for the reasons indicated above.

All vessels referred to in Article 16 were boarded at the time of arrival by the port medical officer and the port health inspector and only one case of unauthorised boarding was dealt with throughout the year. A stern warning was issued on this occasion and no further trouble was experienced with the firm concerned. Boarding for reasons of urgency may be permitted by the medical officer under such conditions as may be imposed by him, but in no case is an individual, so authorised, allowed to leave a vessel until it is free from control under the Regulations. Instances, such as were described in my previous report, of sailors "jumping ship" on arrival at the locks have not occurred during the year, but it should again be reported that, in general, very few steps are taken by ships' masters to secure compliance with the provisions of Article 16 (1).

Medical attention and Hospital arrangements.

Arrangements have been made for premises and waiting rooms for medical examination. All reported cases of sickness among crew and passengers are examined on board at the time of arrival. Crew and passenger inspections are completed on board shortly after reaching berth. Adequate accommodation, if a detailed examination is required for any other purpose under the Regulation, is available in the medical inspection room of the new port health office, constructed in 1943.

The cleansing and disinfection of infected ships' quarters is carried out under the supervision of the inspectorial staff whenever necessary, using the appropriate disinfectant. Clothing, bedding and other articles are removed by van and treated by steam under pressure at the city disinfecting station. The cleansing of persons is provided for at the city cleansing station. A "typhus scheme" is in operation, whereby delousing of patients or contacts may be carried out by trained and protected teams using D.D.T. powder blowers.

Temporary accommodation for patients required for the purposes of the Regulations, and hospital accommodation available for plague, cholera, yellow fever, smallpox and other infectious diseases is provided. Patients suffering from infectious disease, and all cases requiring observation are removed to the city isolation hospital at Ham Green.

Ambulance transport is provided for by ambulances belonging to the city.

Supervision of contacts—Inspectors make daily visits to all vessels from infected or suspected ports and secure a signed report on the health of crew from the officer-in-charge. Any sickness developing after arrival is thus brought immediately to the notice of the medical officer. When surveillance is required, forward notices, giving the appropriate information, are posted to the medical officer of health of the districts to which contacts proceed after leaving the ship.

All pathological and bacteriological examinations are conducted at the Preventive Medicine Laboratories of the University of Bristol. Rats from vessels and quays are systematically examined for evidence of plague. Water samples from hydrants or ships' tanks, and articles of food are examined chemically and bacteriologically when the occasion demands.

Arrangements for the treatment of the venereal diseases.

Full information concerning the location and hours of opening of the venereal disease centres at Avonmouth docks and at Bristol is given to the crew of every vessel entering the port. This information is contained in handbills, available in several languages, which are freely distributed to each ship. When indicated in-patient treatment, under the direction of the venereal diseases consultant, is available at the Snowdon Road Hospital in the first part of the year and subsequently at Frenchay General Hospital to which latter the V.D. beds have been transferred.

The following table relates to seamen treated at the Avonmouth Centre during the years 1944—1947. It will be seen that compared with 1946, there is no significant decline in the incidence of syphilis; gonorrhoea has increased slightly. There are good grounds for presuming that a large number of cases recorded as non-venereal were in fact under surveillance having been treated on board ship with sulphonamide tablets. The four or five-fold increase in the number of seamen from Avonmouth docks seeking treatment since the centre was established in 1943 is being maintained, and there are indications that this will continue.

Year	Syphilis	Soft Sore	Gonorrhoea	Non-V.D.	Totals
1944	154	19	159	311	643
1945	85	26	150	261	522
1946	67	27	254	291	639
1947	60	17	271	252	600

Measures against Rodents.

Steps taken for detection of rodent plague in ships in the port.

Measures commence with the arrival of each ship from "foreign" when consideration is given to the bills of health, the deratisation certificate and the declaration of health signed by the master. The undisturbed surface of the cargo is examined prior to the commencement of the discharge and provides reliable evidence of the condition of each vessel with regard to rats. A thorough examination for signs of rat activity is continued during the time the cargo is being discharged.

Seventeen deratisation and one hundred and fourteen deratisation exemption certificates were issued during the year.

As a result of thorough inspection and trapping—measures which are applied to all cargo vessels—sixteen ships were found with moderate to pronounced rat infestation. Ten of these, from which two hundred and forty-one rats were caught by trapping, were bound for other United Kingdom ports, either with part cargo for discharge, or for extensive overhaul and repair. In every instance the usual "guarantee" forms were signed by the masters, and forward notices were sent to the appropriate Port Health Authorities. The remaining six ships were fumigated at this port and three hundred and forty-nine rats were recovered (170 trapped and 179 by fumigation). A further eleven ships were fumigated at the request of the owners. Fumigation is carried out annually by certain shipping companies to ensure that their ships are maintained in a rat-free condition. A worthwhile precautionary measure, as only nine rats were found in three of these ships, the remaining eight being rat free.

It may be of interest to mention that in the case of one of the above-mentioned ships with a part cargo for another port, thirty-eight dead rats were found in a hold containing bagged flour. The flour had been badly damaged by salt water due to very rough weather experienced on the voyage. As the possibility of plague infection could not be excluded, all necessary precautions were taken and the rats were immediately submitted for examination. It is probable that the deaths were due to asphyxia, connected in some way with the fermentive process that had been set up in the flour.

As indicated in the tables a total of six hundred and eighty rats were recovered from ships during the year and four hundred and fifty-eight or 67% were sent to the Department of Preventive Medicine for examination. No *B.pestis* was found in any of the rats examined.

Steps taken for the detection of rodent plague on quays, wharves, etc.

A total of 1,601, made up of 1,090 brown and 511 black rats were destroyed in these areas during the year. The comparative figures for the previous year were 2,637, 2,326 and 311 respectively. The number of brown rats destroyed has therefore decreased by more than half. This is undoubtedly due to the intensified repressive action taken during the past three years. We are now reaping the benefit of this campaign and if private industrial establishments within the dock area take more effective and continuous measures of control a further decrease can be expected.

Experience has shown that a site with pronounced infestation can be satisfactorily cleared by methodical pre-baiting, poisoning and trapping. Yet, if the site is subsequently neglected, for only a short period, signs of infestation soon re-appear. Intermittent treatment is of little value when dealing with rats, particularly in a dock area when conditions are so favourable for their existence and propagation. Continuous attack must be the aim if these destructive vermin are to be reduced to a satisfactory minimum.

The activity of the black rat has been confined to buildings within three well-defined areas in the dock.. They were not active outside these areas. Careful inspection of large stacks of bagged commodities within the buildings gave little evidence of their presence. Trapping and poisoning often produced poor results; yet, when certain stacks were removed there was evidence which showed that rats had been harbouring and nesting in the centre of these stacks. Trapping on these sites had been more or less continuous and although no spectacular hauls have been made there has been a steady and satisfactory decline both in the number of rats and in the degree of activity. This was confirmed when some of the stacks were subsequently removed. In order to make the nesting places more accessible the authorities concerned have been advised to reduce the size of the stacks and to re-arrange the plan of stowage.

Of the one thousand six hundred and one rats caught during the year, seven hundred and twelve, or 44½% were examined at the Department of Preventive Medicine and all were found to be free of plague infecting organisms.

Mice are also a source of danger to health apart from the extent of the damage that they cause. This damage is frequently to be seen in stacks of cereals, or animal food, especially when these have been stored for a considerable time. Special attention has been given to known focal points of heavy mouse infestation during the year, with excellent results. A total of two thousand one hundred and twenty-seven mice were caught in these places, and a further three hundred and ninety, making a total of two thousand five hundred and seventeen were recovered at other isolated foci of minor infestation.

Measures to prevent the passage of rats between ships and shore.

All vessels from infected or suspected ports are required to attach efficient rat guards to the mooring ropes. Suitable lengths of tarred hessian are wrapped around moorings, outside the leads. Gangways are well lighted at night and when possible are kept raised from the quay.

Methods of deratisation.

On ships fumigation with hydrogen cyanide gas is always recommended. Only two ships were fumigated with sulphur dioxide during 1947.

Premises within the vicinity of docks or quays where rat activity is discovered are subjected to frequent pre-baiting, poisoning and trapping.

Measures taken for the detection of rat prevalence in ships and on shore.

As outlined above, routine inspection is made for signs of rat activity on the undisturbed surface of cargoes prior to discharge. Follow up inspection, including sprinkled sand tests, are subsequently carried out. On shore, regular inspection of all premises and waste ground is made, particular attention being given to premises where foodstuffs are stored.

Rat-proofing.

The majority of docks, wharves, warehouses and private establishments within the dock area are of efficient rat-proof construction. In ships where rat-proofing could effectively be carried out without extensive structural alterations, the owners were recommended to do this work. In many ships, rat-proofing was found to be particularly necessary in respect of provision storerooms. In each case, the recommendations were complied with.

All buildings constructed in the dock area during the year were made effectively rat-proof. Similar attention was given whenever structural alterations were made to existing buildings.

Hygiene of Crews' Spaces.

Foreign-going vessels.

This important branch of port health work has again claimed a great deal of time and attention, 3,107 visits having been made by the inspectorate. Defects under the heading of dirt, vermin and other nuisances are again to the fore. Six hundred and three defects were discovered in 183 British and 37 in 28 foreign owned ships.

These records show that the number of British ships with dirty or vermin-infested quarters is high. An improvement in this direction was hoped for but is not very noticeable, despite the fact that nearly all the ships inspected were provided with accommodation of an improved standard. These defects were invariably due to carelessness and indifference on the part of certain members of the crew. The advent of the Merchant Navy Establishment System, whereby a seaman has the opportunity of continued employment for a minimum period of two years may in due course influence certain types of seamen—if only in their own interest—to a greater appreciation of the need for hygienic and clean habits.

The figures for defects due to wear and tear are more favourable. Only 130 defects mostly of a minor nature and due chiefly to rough usage and neglect, were reported on 58 of the 460 ships inspected.

No outstanding constructional defects requiring the attention of the Ministry of Transport Surveyor were discovered during the year. This is due to the fact, already mentioned, that the accommodation on nearly all the ships inspected conformed to modern standards. Informal approach was made with regard to defective ventilation on one vessel undergoing reconstruction and the matter was rectified.

Coastwise Vessels.

One thousand four hundred and forty-two visits were made to British coastwise vessels, and seventy-six to foreign owned coastwise vessels during the year. These figures refer to visits made to the type of coastwise vessel trading outside the limits of the Bristol Channel, and not to the small craft included in the Port Authority's annual returns of coastwise arrivals. The latter ply only a short distance from the port, keeping within the Channel limits and the upper navigable reaches of the Severn. They frequent the dock as often as three or four times a week. Visits made to these craft during the year numbered 426.

The standard of cleanliness in coastwise vessels has been reasonably good, and the number of defects comparatively low. This may be partly due to the fact that the men usually remain in these ships for long periods and accordingly take a greater interest in their "floating home."

Food Inspection.

Compared with the year 1946 there has been an increase in the importation of most food stuffs. These increases have applied chiefly to grain and cereal products, fruit, canned and frozen meat. The figure for frozen meat alone is 39,000 tons higher than that for 1946 (97,000 tons compared with 58,000 tons).

As stated in previous reports, frequent visits are made every day to ships and transit sheds whilst cargoes are being discharged. Percentage inspections are carried out and damaged foods are detained for further appropriate action. Factors governing the stowage and the handling of imported foods, as well as the measures taken to prevent contamination, vary with the different commodities. This is borne in mind by the inspectors, and they are constantly on the alert to detect any abnormal conditions likely to affect these products adversely. Most cargoes of food arrived in good condition and were handled with care. It was necessary however in some cases to draw the attention of cargo representatives to inadequate wrappings and to evidence of careless handling of some of the meat cargoes at certain of the loading ports.

A total of 244 containers of bananas, over-ripe for dispatch, but fit for immediate use, were collected and distributed to the various children's hospitals in the City. These arrangements were made possible through the permission of the Ministry of Food and the invaluable and kindly help of Messrs. Elder and Fyffe's representatives.

Public Health (Cleansing of Shellfish) Act, 1932.

Public Health (Shellfish) Regulations, 1934.

There are no shellfish beds or layings within the jurisdiction of the Bristol Port Health Authority. The supply of shellfish marketed in Bristol is obtained mainly from the following sources :—

Cockles from St. Clair, South Wales, and King's Lynn, Norfolk. Escallops from Brixham, South Devon. Mussels from Appledore, North Devon and St. Clair, South Wales. Oysters from Cornwall, others from Thames Estuary and Continental countries via London. Winkles from Appledore, North Devon. Whelks from King's Lynn, Norfolk.

Parrots (Prohibition of Import) Regulations, 1930.

Four vessels arrived in 1947 with six birds of the parrot specie on board. Importation was prohibited under the regulations.

Water Sampling.

Routine sampling of ship supply fresh water was carried out during the year. These samples were obtained from various standcocks situated on the docks.

Samples of drinking water were also taken from ships on complaint.

Food Samples.

Details of samples of food examined by the bacteriologist and analyst are contained in the statistics tables, page 154.

Appendix II.

THE ENVIRONMENTAL HEALTH SERVICES

<i>Chief Sanitary Inspector</i>	<i>F. J. REDSTONE.</i>
<i>Deputy Chief Sanitary Inspector</i>	<i>R. WILLIAMS.</i>
<i>Senior Housing Inspector</i>	<i>C. E. BOWDEN.</i>
<i>Senior Food Inspector</i>	<i>H. M. GOULD</i>
<i>Senior Port Health Inspector</i>	<i>E. I. DAVIES.</i>

With comments on the following departmental sections:—

GENERAL SANITATION
HOUSING
MEAT INSPECTION
FOOD INSPECTION
RAT & MICE DESTRUCTION
PORT HEALTH.

Sanitary Circumstances, Housing and Inspection of Food (Statistics, p.140).

It was to be expected that the progress made by the environmental health services in this city during 1947 would be conditioned a great deal by the shortages of labour and material which have been one of the main features of life during the post-war years. Officers of the Public Health Department have played their full part in the "formulation of plans," "lines of action" and "blue prints" for the future but at the same time have not allowed the urgent day-to-day problems to be overlooked; indeed efforts have been made to accomplish the maximum towards maintenance of conditions conducive to public health. The point is more appreciated when it is realised that the service of practically every notice brings in its train the need for the support of licences and supply of controlled materials.

We are living in times of unparalleled scientific achievement with jet airliners, radar and atomic energy, and in the physical world with which man is so intimately connected we find movement and progress endless. Sanitary science offers no exception to this law but the movement must especially be pressed forward by those into whose hands the public health has been committed. It has been said that the success of a nation is born in the homes of the people, but close contact with conditions show it is evident that the public still need information on many questions of environmental health importance in spite of the fact that this country has been among the most original and successful administrators of modern sanitary science in the world.

In some cases people are not using the means of health and cleanliness which are within their power, although it has to be admitted that often they are powerless to alter harmful surroundings. Present circumstances prevent extensive demolition of worn-out houses but much has been done to improve living conditions during the year by the provision of new houses under the City Council housing schemes.

Once again it can be reported that many requests were received for lectures and short talks on health matters from debating societies, youth clubs, townswomen's guilds and similar organisations. Much of this additional work has been readily undertaken by officers of the department outside normal office hours, and the interest shown in the services outlined to various associations of people has been most encouraging.

The presentation of an annual report gives me, as Chief Sanitary Inspector, the opportunity of expressing sincere feelings of appreciation of the splendid relationship existing with the Medical Officer of Health. The advice and encouragement he has so readily given at all times is, it is claimed, reflected in the results obtained by the environmental health services. In my opinion there is no doubt that the interpretation of the functions as carried out in Bristol, has led to a sound administration which is in the interests of public health generally.

Successes during the year by officers of the section.

The following further qualifications were obtained by officers of the section during the year:—

Certificate of the Royal Sanitary Institute in "Food Hygiene."	T. R. Bevan.
Certificate of the Royal Sanitary Institute in "Sanitary Science"	L. Dearden.
Diploma in Public Administration — Part 1, Bristol University.	J. V. Machin.
Diploma in Public Administration — Part 1, Bristol University.	M. G. Wintringham.
Diploma in Public Administration — Part 1, Bristol University.	F. Jones.
Diploma in Public Administration — Final, Bristol University.	B. Firminger.
Diploma in Public Administration — Final, Bristol University.	C. E. Bowden
Diploma in Public Administration — Final, Bristol University.	R. Williams.

Elected Fellow of the Sanitary Inspectors' Association	R. Williams.
Appointed Examiner of the Royal Sanitary Institute and Sanitary Inspectors' Examination Joint Board.	R. Williams.
Elected to the Executive Council of the National Smoke Abatement Society.	F. J. Redstone.

ADMINISTRATION.

During the year over 6,000 complaints were dealt with by this office, which involved the service of more than 2,000 statutory notices. Despite the varied and many difficulties in connection with the labour and materials required to carry out works entailed by these notices, it is worthy of mention that only 187 were outstanding at the end of the year, representing less than 9% of the total. It must be remembered too that some of these 187 outstanding notices would not even have expired by the end of the year.

The supervision of the execution of the notices referred to involved 41,760 visits by the inspectorate and the small number of outstanding cases is an indication of the success of the efforts of the department.

Delegates from Germany.

The National Council of Women of Great Britain, Bristol branch, arranged for a visit of delegates from Germany to this City. A programme was planned for them which covered the main aspects of local government activities in this country. This department took part in the programme and arranged a conducted tour of the central clinic and a visit to the new housing sites, including pre-fabricated houses, which was followed by a lecture summarising the environmental health services.

Among the delegates were a number of doctors who showed a keen interest in the field side of public health work as carried out in Bristol.

In connection with the overcrowding problem they were not impressed by the picture described to them, as where we spoke of families overcrowding a house, they had been accustomed to think in terms of families overcrowding a room.

HOUSING.

During the past year the continued shortage of essential materials and building labour has had a particularly serious effect in regard to the repair and maintenance of the many house properties needing attention.

The majority of house repairs were achieved through the medium of the Public Health Act. In special cases action was taken under the Housing Act 1936, but the sections dealing with demolition and closing were used only where properties had become dangerous to the occupants, or were in such a state as to be completely unfit for human habitation.



HOUSING ACT, 1936

- (2) This house adjoined that shown in picture 1. It will be seen that the Undertaking to Repair improved conditions.



HOUSING ACT, 1936

- (1) A large number of houses are found in a similar condition to that shown above. This house, with others adjoining, was the subject of an Undertaking to Repair under Section 11.

Complementary to the work achieved under the Housing Acts it should be emphasised that an effective liaison has been maintained with other corporation departments on matters of common interest, which includes inspections with respect to:—

- (a) Town Planning.
- (b) Points scheme for the allocation of Council Houses, and
- (c) Land Charges enquiries.

Housing Acts, 1936.

Houses inspected and represented to Committee.

Section 9.....	—
Sections 11 and 12.....	101
Clearance Areas	—

Orders made.

Section 11 (Demolition)	61
Section 12 (Closing Orders)	10
Section 11 Undertakings to repair accepted.....	5
Section 11 Undertakings not to use for human habitation	7

Houses repaired.

Section 9	15
Undertakings to repair	10
Other repairs	8

Unfitness Orders. Town and Country Planning Acts, 1944-1947.

Following an enquiry, the Minister of Town and Country Planning confirmed a compulsory purchase order with respect to an area of 5 acres comprised in the proposed Bedminster Trading Estate. The Council resolved to consider the making of an unfitness order with respect to such houses which were unfit for human habitation and not capable at reasonable expense of being rendered fit. This entailed a detailed examination of a number of properties with the preparation of schedules for reference in connection with this important matter.

Housing Surveys.

Previous reports have laid stress on the importance and necessity of having detailed and up-to-date information regarding the housing circumstances of the City. With this end in view the housing survey commenced in 1944, continued throughout 1947 and embraced the Easton, Stapleton Road, Barton Hill and Montpelier areas.

Rent Restriction Certificates.

During the year 16 certificates were issued under the Rent and Mortgage Interest Restriction Acts respecting properties not in a reasonable state of repair.

Requests for information from Land Charges Department were received in respect of 394 properties compared with 113 during 1946.

Overcrowding.

277 requests for information respecting "permitted numbers" were received and dealt with.

Allocation of Council Houses.

Close co-operation with the Housing Manager's Department has been maintained and under the pointing scheme opinions have been expressed with respect to the general condition of approximately 6000 properties.

TENTS, VANS and SHEDS.

There were no new establishments of this kind created within the City boundary during the year, although a few cases occurred which might have developed into a colony. This was prevented, however, in accordance with the instructions of the Health Committee, who have decided that rough living of this kind is not in the interests of public health generally. There is, of course, a very big difference between the legitimate camper who pitches his tent for a week or so whilst on holiday, as distinct from the people who desire to exist in huts and shanties of various kinds.

FILTHY and VERMINOUS HOMES

From time to time the attention of the general public has been drawn to unsatisfactory homes when cases taken in court have revealed the existence of shocking conditions. Contact with these cases during routine inspection, together with complaints received by the Public Health Department, is apt to focus attention on this particular problem, but it is most important that such conditions be kept in their true perspective in relation to the vast majority of homes kept in a creditable state.

A comparatively small number of families who have now been termed "problem families" are indeed a menace to the health of the community, and more immediately, to the well being of any children so unfortunate as to be raised in these surroundings. The reasons for the apathy shown to filth and vermin are many, and it is very pleasing to know that a National Committee has been formed to undertake research into this problem on a national scale. The first piece of work organised by this committee is a series of six surveys in various parts of the country which has as its object the formulation of a satisfactory method of "ascertaining" the "problem families" in any area.

The Bristol survey is under the supervision of Dr. R. C. Wofinden, the deputy Medical Officer of Health, who has given much time and thought to this important aspect of public health work, in which locally, he will be readily assisted by the sanitary inspectors who come into close contact with these cases in their day-to-day work.

CARE OF AGED PEOPLE

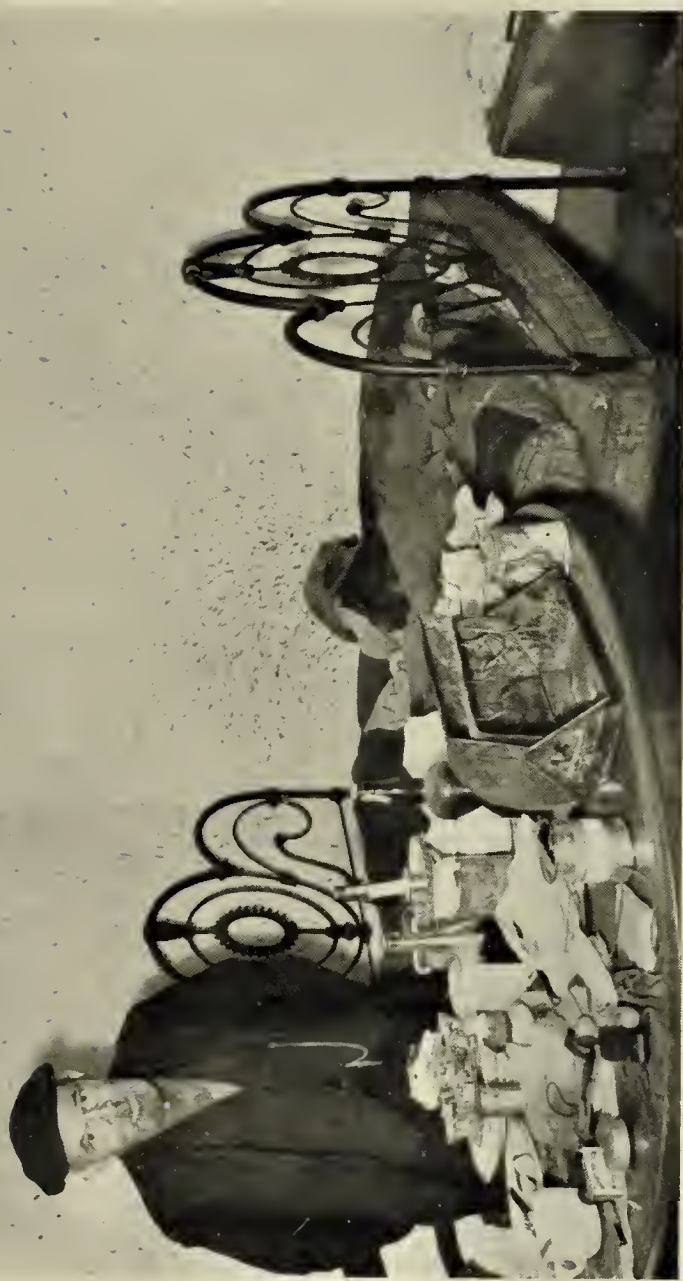
A great deal of attention has recently been directed to one of the main problems facing this country to-day, namely, the care of old people. It is distressing to see conditions under which many aged and infirm persons have to live in this city, and on a number of occasions voluntary removal to an Institution was carried out.

It is understandable that such people show a great reluctance to leave their own homes, and it is therefore satisfactory to record that only on one occasion was it necessary, in the interests of the health of the person and others, that compulsory removal be invoked during 1947. This had been in great part due to the splendid work accomplished by Miss G. L. Edman, S.R.N., Matron of the Civil Nursing Reserve, who has done much to alleviate suffering and improve the comfort of these unfortunate people.

A special conference was held at Bristol University when many points of view—medical, social, and psychological, were expressed by various speakers who have to deal with these cases in various parts of the country.

In view of the general feeling among those present that there is a need for more rapid progress in this matter, it was pleasing to hear the Medical Officer of Health, move the following resolutions, which were passed unanimously:—

- (one) That the Bristol Council of Social Service be requested to call together at an early date representatives of all bodies voluntary and statutory, interested in this problem, to see what action can be taken at once to improve conditions under which many of the aged and infirm have to live in this city.
- (two) That the Divisional Hospitals Council shall be requested to discuss with the University the possibility of their undertaking a survey so as to measure and elucidate the character and size of this problem in this city.



HOUSING

"Furnished room" in a condemned house. The pattern on wall paper is bug marks caused by occupant's own extermination methods. New bedding has been provided and the vermin dealt with by Health Department. Old man says—"I sleep much better now!"



---and so to rest !
Flashlight photograph of bedroom taken in house—Now demolished

ATMOSPHERIC POLLUTION

For many years a comparatively small number of enthusiasts in this country have been endeavouring to secure a cleaner atmosphere, but the result of their endeavours has not been startling. Some areas suffer more in this respect than others, and whilst generally the air of the City of Bristol cannot be said to be grossly polluted, there is a great need for improvement and much has to be done before the abolition of smoke and grit nuisances has been secured.

The testimony of medical authorities against smoke is overwhelming and those concerned with environmental conditions daily have ample experience to satisfy them as to the importance of this matter.

In this connection it is of interest to note that Lord Horder has given pride of place to clean air as the first and most important amenity which should be obtained and preserved by local authorities.

A smoking chimney is still considered by some to symbolise prosperity; on the contrary it demonstrates waste of valuable energy which is deplorable when coal is the very life blood of our economic existence and the key to our industrial recovery.

Many complaints were received during the year regarding grit and excessive smoke emission. It must readily be admitted that the post-war fuel crisis has accentuated these problems and one is aware that the Ministry of Fuel has been hard pressed to meet the demands for coal of any grade with which to assist industry and heat homes.

It is appropriate to make reference to the excellent co-operation which exists between officers of the Ministry of Fuel and Power and the Chief Sanitary Inspector's Department. In Bristol when we meet cases of special difficulty, arrangements are made for the offending plant to be visited by one of the Ministry's fuel engineers and an investigation is carried out to ascertain the cause of the smoke and/or grit emission.

Suitable advice is given and recommendations made to the firm to assist in overcoming the problem. Where it is found that the trouble is due to inexperienced operators, a visit by one of the Ministry's stoker-demonstrators is arranged, so that the necessary training and instruction on correct methods of firing and plant operation may be carried out in the boiler house. The advice and recommendations also cover such things as remedying plant defects, and flue cleaning. If the Ministry are satisfied that a change in fuel is essential, steps are taken to provide a more suitable grade. As a result of this co-operation, we have secured improved conditions in all cases dealt with on the lines indicated above.

As a direct result of complaints received and reports made regarding grit and fume nuisance from the Stapleton Road gas works, it has now been decided to modernise and extend this plant.

Following discussions with the appropriate council committees, plans were submitted, but before approval was given, arrangements were made by the Town Clerk for a visit of council members and officers to the gas works at Torquay which are situated on the sea-front and operate without nuisance of any kind. The Bristol representatives, which included the Chief Sanitary Inspector, were well received, and during their tour of inspection expressed amazement that works of this kind could be carried on in such a cleanly way. The final plans for the new plant at Bristol will be even more modern than that seen at Torquay, and although the installation will take some considerable time the occupants of residential properties in the neighbourhood are pleased to hear of the progress being made towards the abatement of nuisance suffered for some years.

The National Smoke Abatement Society has made suggestions for new legislation to control and prevent smoke in the future and a memorandum outlining the main principles is now being submitted to local authorities, industrial concerns, trades unions and other organisations. It is confidently hoped that a large measure of support will be given to agreed proposals when they are finally presented to the appropriate government department for consideration of legislative action.

The progress made in connection with these proposals which stress "Prevention of Smoke" as the main theme will be presented in the next annual report.

It is pleasing to record that the interest taken in the need for clean air by Bristol City Council in general, and the Health Committee in particular, has, during the year, been nationally recognised by the election of Alderman J. J. Milton, J.P., as a Vice-President of the National Smoke Abatement Society.

MEAT INSPECTION

Meat Precinct.

Reference was made in last year's report to the Bristol Health Committee's new scheme for the acquisition of a site at Avonmouth for a meat precinct which would incorporate adequate pasturage, lairage, slaughtering, cooling, refrigeration, and distributing facilities; a cattle market, a meat market, and sites for bacon and other meat-food factories.

It was considered that this modern conception of a suitably sited centre to deal with all meat production requirements would result in the more hygienic handling of meat supplies. The diagram included in this report, clearly shows the present set-up regarding meat distribution in this city, and emphasises the need for a more coherent plan to be worked out under the town planning and reconstruction schemes. The enquiry into this matter was held during January, but subsequently a reply was received from the Ministry of Town and Country Planning which stated that . . .

" . . . While the Minister appreciates the motives which have prompted the Council to propose the acquisition of land for a meat precinct, he is advised that any such project must depend upon the Government's general policy in regard to arrangements for slaughtering and marketing. This policy is at present under consideration, and it would, in the Minister's view, be premature at this stage to authorise the acquisition of land at Avonmouth for this purpose.

. . . In these circumstances it has been decided that confirmation of the Order should be withheld and I am to ask that the decision shall be notified to all interested parties . . .

Many complaints have been received regarding the driving of animals through the streets and as the year closed this problem was receiving the urgent attention of the Health Committee and City Council.

Public Abattoir—Whitehall

This abattoir which is used to capacity by the Ministry of Food was maintained in good order throughout the year. Improvements carried out included the provision of a special type grease trap; the erection of new fencing to cattle paddock; the provision of two extractor fans in roof of cooling hall to improve ventilation, and the fixing of new floors to beast stunning-pens.

Bone Taint.

The inspection of meat, which normally calls for most careful attention, was this year even more complex. A considerable quantity of imported meat was affected with bone taint which became evident when defrosted after delivery to the butchers. While the inspectors kept in mind the great need for conserving as much food as possible, no meat which was unfit was permitted to go into distribution. The closest collaboration exists between the officials of the Wholesale Meat Supply Association and the department, and all meat undergoes the keenest supervision.

Slaughter of Animals Act 1933.

After consideration of a report by the Chief Inspector, the Health Committee adopted the policy that in future all applicants for a licence to slaughter animals under the above Act should give a practical demonstration of their ability and efficiency in slaughtering before a licence is granted. This policy has been followed and prospective slaughtermen are given the prescribed test at the abattoir under the supervision of the meat inspector.

This will overcome the fact that there is no provision under the Act as to the means to be adopted to ensure that all slaughtermen are fit and proper persons to hold licences.

Horseflesh for Human Consumption.

An innovation in the city was the opening of a shop for the sale of horseflesh for human consumption. Whilst horseflesh is quite a usual item of diet on the continent, previously it has not found much favour in this country.

There is no reason why horseflesh should not be sold for human consumption, provided it is supplied in a manner which satisfies the provisions of the Food and Drugs Act administered by the department and those of the Ministry of Food.

No doubt the great attraction is that in these times horseflesh is meat "off the ration" and this probably accounted for the popularity of the new shop in Bristol.

Whale Meat.

Another unusual article of diet for Bristolians was whale meat which was on sale this year.

Attempts were made to use this food in preparation of sausages but, from the information to hand, this has not been too successful. Further investigations into the uses of whale meat appear desirable, a matter which will probably not be lost sight of by the Ministry of Food.

POLIOMYELITIS. Environmental Aspects.

The Medical Officer of Health arranged that in all cases confirmed as Poliomyelitis the environmental circumstances should be investigated by this department.

Careful enquiries were made regarding food supplies, contact with any other known case and the normal routine procedure in these matters, including disinfection of all homes of patients, followed. Early in the outbreak in Bristol in one case which proved fatal, it was possible to establish a direct contact with another fatal case in Scotland.

Swimming baths received special attention and arrangements were made for frequent samples to be taken and submitted for chemical and bacteriological examination. We received the full co-operation of the Chief Baths Superintendent and every precaution was taken to ensure that chlorination was efficiently carried out.

The possibility of fly nuisance being a factor in the spread of this disease was not overlooked and measures were taken to deal with all infestations, particular attention being paid to the pig-food bins which received special treatment from the Cleansing Department.

Bearing in mind the Medical Officer of Health's insistence that fly infestations be kept under the strictest control at all times it may be significant that practically all the cases notified in Bristol had been in contact with outside areas of infection.

Food and Drink Infections.

The deputy Chief Inspector attended a one day conference on Food and Drink Infections which was held in London during October under the auspices of the Central Council for Health Education and presided over by Lord Woolton.

The representatives of all branches of the food industry and local authorities in England, Wales and Northern Ireland discussed the problems arising from infection conveyed by food-stuffs. It was pointed out that whereas before the war there were approximately 80 outbreaks of food-poisoning a year in the country there were now over 500. It was suggested that this increase could be attributed to lower standards generally and the great increase in communal feeding which brought with it a greater risk of infection.

As far as Bristol is concerned the Medical Officer of Health has impressed upon the food trade generally the great need for personal hygiene and proper care in the preparation of food-stuffs, and at the present time we are in the throes of a clean food campaign.

It will be realised that to achieve any marked improvement, it is necessary to maintain continuous and intensive surveillance of personnel and premises by the inspectorate. Nevertheless, the increase in the number of cases of food-poisoning mentioned justifies all the efforts that are being made to ensure that food handlers are informed on this question.

School Kitchens and Canteens.

A survey is now being made of all the school kitchens in the city, after which it is hoped to adopt a general standard which will ensure that all such premises reach the desired level of hygienic construction and operation.

Licensing and supply difficulties restrict the provision of suitable and adequate means of sterilisation, but this aspect is being carefully watched and improvements will be made wherever possible.

Food Sampling.

During the year 2,068 samples of food and drugs were collected and submitted to the Public Analyst for analysis. This represents a proportion of 4.78 samples per thousand of the estimated population, which, according to Ministry of Health standards is quite sufficient to maintain the necessary supervision.

Of the samples taken 77 were condemned, 65 of these relating to milk. Appropriate legal action was taken in all cases.

Milk and Dairies.

The local authorities are still responsible for the inspection and supervision of milk production although it is intended that the Ministry of Agriculture and Fisheries will take over those functions when the Food and Drugs Milk and Dairies Act 1944 has been put into operation.

The number of farms has been reduced, six of them having been affected by building activities in the Southmead, Avonmouth and Kingsweston areas.

Licence restrictions again kept improvements and reconditioning at a minimum, but apart from cleansing and repair work two new dairies and one cowshed were constructed.

Milk (Special Designations) Regulations 1936/1946.

Since last year there has been an increase in the number of licences issued under these Regulations. Production of tuberculin tested milk appears to be attracting the attention of more farmers and there are twelve dairymen in the city bottling and selling such milk.

Some degree of centralisation is taking place where larger firms have attempted to concentrate their plant for the processing of milk.

The heat treatment policy of the Ministry of Food is gaining support in the dairy trade, and the department is pleased by the fact that the majority of these heat treatment processors are maintaining a full pasteurisation level.

Ice Cream.

Last year it was reported that the Heat Treatment Regulations made for the control and supervision of the manufacture of ice cream would come into operation on the 1st May 1947. The ice cream trade generally has been extremely anxious to comply with the standards called for by the regulations, but suffer from the grave shortage of equipment and necessary plant.

The closest co-operation exists between the trade and the department and a meeting was held at the Merchant Venturers' Technical College in May at which the deputy medical officer of health, chief sanitary inspector, and other officers met the trade to discuss their various difficulties.

It is extremely unlikely that ice cream premises and methods of manufacture will reach the standard set by the requirements within the next 12 months. Ice cream has now ceased to be a seasonal trade, and sustained efforts are being maintained to obtain the best possible standards.

Fertilisers and Feeding Stuff Act 1926.

Of the ten samples examined by the Agricultural Analyst two were found to be outside the limit of variation, but as they were not to the prejudice of the purchaser no action was taken.

The remainder of the samples complied with the statutory statements furnished in accordance with the Act.

Butter Factories.

Of the eleven premises on the register of the local authority for the purpose of blending and re-working butter only four of the factories are operating. Samples of butter taken from these places all proved to be satisfactory.

CITY WATER SUPPLY.

Particulars required by Ministry of Health Circular 170/47 (England)

1. Whether the water supply of the area and its several parts has been satisfactory. (a) in quality. (b) in quantity.	YES.
2. Where there is a piped supply, whether bacteriological examinations were made of the raw water and, where treatment is installed of the water going into supply; if so, how many and the results obtained; the results of any chemical analysis.	Raw waters examined bacteriologically before treatment by Bristol Water Works Company. Raw water at Barrow before filtration—weekly. Raw water at Chelvey before chlorination—twice weekly. Raw water at Litton before chlorination—monthly. After treatment found satisfactory.
3. Where the waters are liable to have plumbo-solvent action, the facts as to contamination by lead, including precautions taken and number and result of analysis.	NOT LIABLE. Latest analysis 18th Nov. 1947 from cold water tap in laboratory. Lead—Nil.
4. Action in respect of any form of contamination.	On finding any trace of faecal pollution the matter is taken up with the appropriate authority immediately and the question of treatment reviewed and suitable measures taken. Sampling is repeated until satisfactory results are obtained. Contamination after treatment has been negligible.
5. Particulars of the proportion of dwelling houses and the proportion of the population supplied from public water mains. (a) direct to houses. (b) by means of standpipes.	(a) The whole of the population in the Bristol area is supplied by public water mains direct to houses with the exception of a few isolated premises in the rural suburbs when the supply is free from private wells and subject to a form of chlorination. These are being gradually reduced as mains supply is laid on. (b) Negligible.

RAT DESTRUCTION.

The Rats and Mice Destruction Act 1919 clearly places the liability of rodent repression upon the occupiers of premises. However, in an effort to ensure that no impediment would arise and in view of the fact that the conduct of an intensive and vitally necessary campaign for rat extermination would introduce factors outside the statutory liability of householders, the local authority and the Ministry of Food together undertook to relieve occupiers of private dwellings of charges for destruction of rats in their premises. This was the first time that any free service of this sort has operated.

The drive outlined by the Ministry which was called the "Block Control Scheme" consisted of the division of the city into suitable areas all the premises in which were visited by investigators who inquired as to the possibility of rat or mice infestation. On the evidence thus produced by this survey, visits were subsequently made by rat operators who, after baiting the premises concerned, laid poison baits and carried out other measures as required.

The scheme was launched with the invaluable assistance of the press and cinemas, both of whom brought before the public the salient points of the campaign and made a strong plea for collaboration. It should be mentioned that many people were originally under the impression that the scheme only dealt with rats and not with mice, and were pleased to find that the smaller pest could also be destroyed. The public proved to be most helpful and keenly interested in the success of the extermination methods. Food firms and other business premises were helpful and co-operative in making the block scheme complete. Treatment of the sewers of the neighbourhood was synchronised with the surface drive.

It can be claimed that this experiment of surveying infestations in the first instance, followed by the necessary treatment, together with the relief of the householders' financial difficulties in connection with that treatment, has proved to be a success.

The following details of the work carried out during the year have been provided by the rat repression officer:—

"The total number of complaints received during the year was 2,243 (1946-1,944). Bearing in mind the fact, however, that each individual complaint necessitates the inspection of adjacent and adjoining premises or land, a true assessment of the work involved is not gained from this figure alone.

A total number of 2,243 informal notices have been served, but in no instance was statutory action necessary. Routine visits (398) were made to 62 premises comprising nurseries, clinics and hospitals, with the result that almost complete freedom from all pests exist in these premises at present.

The refuse tips under the control of the Cleansing and Transport Officer have been methodically treated and are in excellent condition. Constant supervision is, however, necessary to ensure that no deterioration takes place. Vigorous action has been taken throughout the year at Eastville destructor plant and the premises used for the manufacture of pig food, and these premises are now clear.

Extensive demands have been made during 1947 by occupiers of dwelling houses with regard to mice clearance and it is felt that the time has now arrived when a charge to the occupiers should be made for this work.

The intensive measures carried out for the clearance of the brown rat in the St. Philip's Marsh area were responsible for the recovery of 884 rats by trapping. So successful has been this work that almost complete immunity is enjoyed by the occupiers. Severe infestations of the black rat have arisen in various parts of the City, and in view of the prejudice of this type to ordinary methods of extermination a great deal of man power and materials have had to be used to successfully combat these outbreaks.

The conditions of the Portishead and Avonmouth Docks with regard to the brown rat infestation is excellent, but against this I have to report a serious increase in the ship-rat population at these places. There again energetic measures are being taken to bring this under control and during the year the number of black rats recovered was 506 (1946-292).

Ministry of Agriculture and Fisheries.

The initial survey and inspection of the City and County under the Block Control Scheme has now been completed. This resulted in 1,961 infestations of rats and 10,752 of mice being reported.

The actual work of destruction is still being proceeded with and up to the present time 781 premises have been cleared of rats and 5,997 of mice.

The second and final maintenance treatment of the sewerage-system (as laid down by the Block Control Scheme) has been carried out.

From the data gathered over the whole of these operations, it can be assumed that—

- (a) The sewers of the City are still heavily infested with rats.
- (b) that more frequent treatment of the sewers should be carried out in conjunction with repression measures on the surface, and
- (c) that the present method of treatment should be improved in certain directions."

RUBBISH DEPOSITS.

Many complaints were received with regard to the indiscriminate dumping of rubbish on vacant sites throughout the City. The Chief Sanitary Inspector reported to the Health Committee on this matter, when it was agreed that the following notice should be prepared and affixed at all such sites in addition to other vacant land, as a precautionary measure.

CITY and COUNTY OF BRISTOL.

PUBLIC HEALTH ACT

1936

Notice is hereby given that action will be taken against any person depositing rubbish on void land.

Your co-operation is invited in this matter which is in the interests of public health and will prevent rat harbourage.

A. PICKARD,
Town Clerk.

Some hundreds of these notices have now been used and although the measures taken have brought about some improvement, the problem associated with blitzed buildings and open basements still persists, particularly around the central market area. The Transport and Cleansing Officer and his staff have been most helpful in dealing with this difficult problem, and the Health Committee, on more than one occasion, expressed satisfaction regarding the efforts being taken to maintain the city in a clean condition.

During the year under review a special appeal was made to the public to assist in this matter, but there seems no doubt that a certain amount of this kind of thing will continue until re-development of the affected sites takes place under the new planning schemes.

The Bristol Corporation's refuse tips were controlled in accordance with Ministry of Health principles and no serious nuisance occurred at any time. Some private tipping sites gave cause for complaint and in one case where all types of refuse had been dumped with no control, complaints of rat and cricket nuisance were received. A notice was served on the owner of the land and arrangements were made for the provision of a bulldozer and labour to level and consolidate the ground. This done, further steps were taken to prevent nuisance, by spraying and covering with fine soil, in addition to work of rat destruction.

DISINFECTION—FEEDER ROAD STATION.

The disinfection of premises and articles following cases of infectious disease was continued in accordance with routine practice and it is of interest to note that the total number of jobs carried out by this essential service was 6,434.

This work, apart from the disinfection of household bedding, included the disinfection of 1,413 articles of camp equipment, the disinfection of materials for the Cleansing Department and private business firms, the treatment of 7,150 poultry meal bags to prevent the spread of fowl-pest, and disinfections at hospitals and nursing homes.

Many visits were made to various hostels throughout the city in connection with disinfestation of premises and disinfection of articles.

During the early part of the year a number of dwelling houses in low lying areas became flooded and in 18 cases the department assisted the occupiers by spraying the premises with disinfectant and drying bedding and similar articles.

Two steam disinfectors were used to capacity during the year and the following quantities of material were also employed on the general work outlined above.

Disinfectant	110 gallons
Liquid Insecticide	400 gallons
Gammexane—D.034	1 cwt.
D.D.T. Powder Mixture	40 lbs.

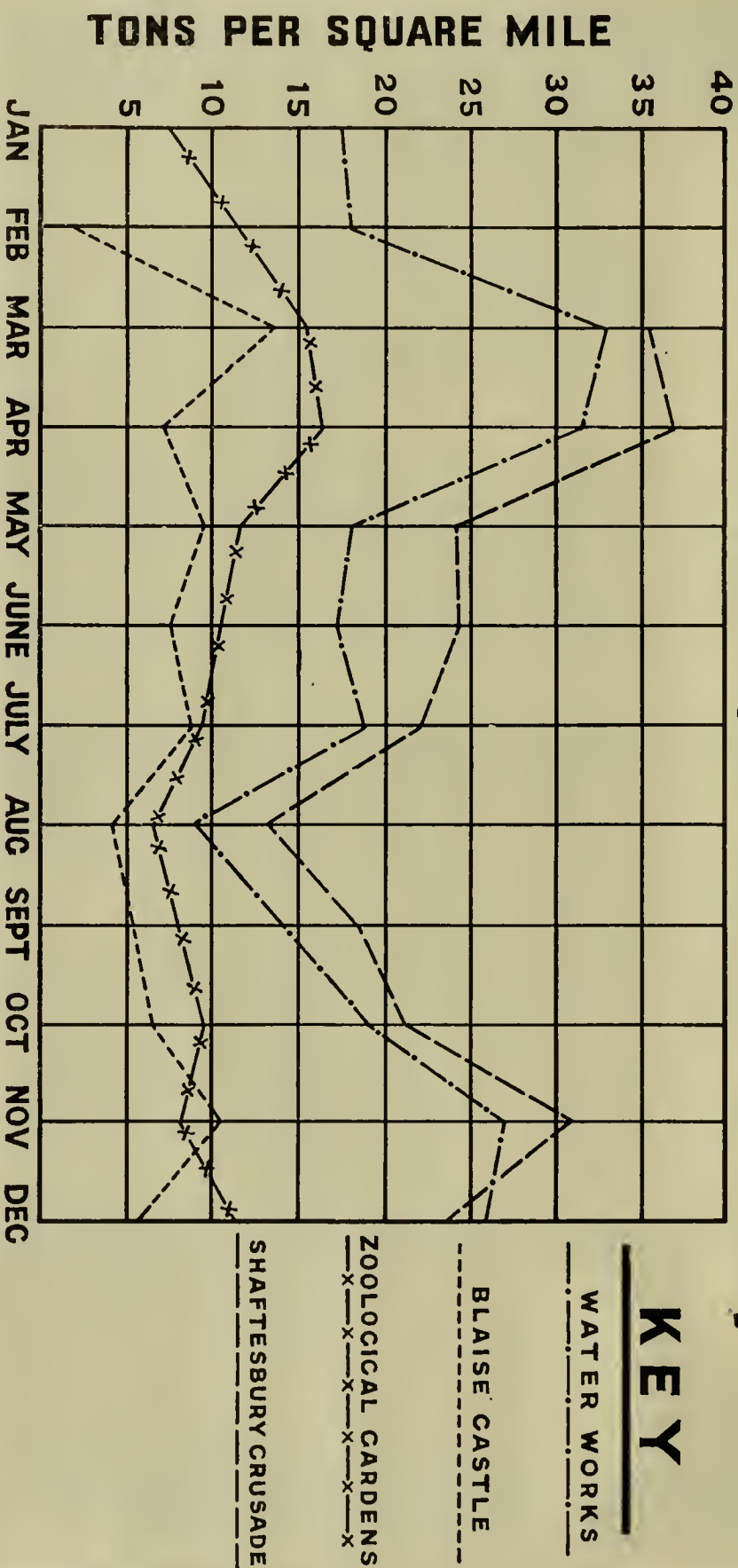
THE CLEANSING OF PIG-FOOD BINS

Many complaints were received by the Health Department in connection with nuisance arising from pig-food bins. These complaints are passed to the Cleansing and Transport Officer whose Department is responsible for the cleansing of these receptacles. During the warmer months of the year special arrangements were made to increase the frequency of cleansing and a new scheme is under consideration to deal with this matter.

F. J. REDSTONE, *Chief Sanitary Inspector.*

ATMOSPHERIC POLLUTION. 1947

Total Solid Matter [Suspended & Dissolved]



Appendix III.

THE REPORT OF THE PUBLIC ANALYST, OFFICIAL AGRICULTURAL ANALYST AND GAS EXAMINER

By ERNEST GEORGE WHITTLE, B.Sc. (Lond.), F.R.I.C., Public Analyst. Deputy Public Analyst, IVOR DEMBREY, B.Sc. (Bristol), F.R.I.C. Assistant Analysts: First, GEOFFREY G. FISHER, B.Sc. (Birm.), A.R.I.C.; Second, Appointment pending; Third, JOHN SMYTH, B. Sc. (Bristol). Chlorination Officer, RALPH C. M. PUTNAM.

The year has been largely one of re-organisation and re-equipment of the laboratory. Concerning the staffing problems, Mr. Dembrey was appointed Deputy Analyst in October, and Mr. Fisher arrived in November as second assistant. Consequent upon Mr. Dembrey's promotion, Mr. Fisher will move up to the post of first assistant and it hoped that in the near future the vacant post of second assistant will be filled, when the laboratory staff will be at full strength for the first time in over two years.

Re-arrangement and modification of working conditions and laboratory spacing have greatly helped to relieve difficulties of inadequate accommodation.

A certain amount of new equipment has been purchased largely to replace out of date apparatus and recently permission has been obtained to purchase essential apparatus required under the Labelling of Food Order. Owing to supply difficulties the complete installation of this equipment cannot be expected for at least two years, but its eventual establishment will go far to modernise the laboratory, and will enable us to keep pace with new ideas and trends in Food and Drug work.

The total number of samples examined is slightly below that for the year 1946, but this was inevitable since the staff was not at full strength and moreover with increasing numbers of Food orders the work upon certain samples is more detailed and complicated.

The report has been divided into eight sections as under:—

- Part I Food and Drugs Act
- Part II Pharmacy and Poisons Act
- Part III Fertilisers and Feeding Stuffs Act
- Part IV Waters, Effluents and Sewage Chlorination
- Part V Rag Flock Act
- Part VI Miscellaneous Analyses
- Part VII Gas Regulation Act
- Part VIII Atmospheric Pollution

Miscellaneous analyses continue to provide an increasing variety of samples for infestation, examinations of blood and urine.

The care of three official recording calorimeters under the Gas Regulation Act entails a considerable amount of work. During the year Mr. C. R. Turner was appointed as an official Gas Examiner and he has fully justified his appointment and given valuable assistance in maintaining an essential service of this department.

An increasingly important phase of the work concerns Atmospheric Pollution. In 1946 four stations were in operation and early in 1947, five more were set up in the Avonmouth area, to be followed in January of this year 1948 by a further six in the Portishead area—a total of fifteen stations. The original four stations are fully equipped for determination of sulphur dioxide and deposits, but owing to lack of apparatus the remaining eleven are at present only recording sulphur pollution, although it is hoped that a complete survey will soon be possible.

The new legislation pending under the Rag Flock Act is still awaited although a certain amount of practical detail has been incorporated in methods of the British Standards Institution. It is apparently intended to impose further tests of cleanliness besides the original chloride estimation and moreover to extend the scope of the Regulations to cover such articles as stuffed toys.

Finally, I desire to acknowledge with gratitude the enthusiastic and willing service of members of the staff without whose co-operation it would be impossible to cope with the large mass of work.

I am, my Lord Mayor, Ladies and Gentlemen,

Your obedient servant,

E. G. WHITTLE, Public Analyst.

SUMMARY OF SAMPLES

Table 1

Food and Drugs Act	2068
Water for chemical analysis	360
Fertilisers and Feeding Stuffs Act	10
Rag Flock Act	13
Gas Undertakings Acts	624
Atmospheric Pollution	48
Miscellaneous	250
Health Department (C.S.I.)	25
Pharmacy and Poisons Act	2
	3400

Part 1

FOOD AND DRUGS ACT.

During the year 2068 samples were submitted for analysis under the Food and Drugs Act, 1938.

Table 2 shows the nature and number of samples submitted with the number reported genuine and the number adulterated.

Table 2

Nature of sample	Number examined	Number genuine	Number adulterated
Milk	1322	1257	65
Ice-cream	63	63	0
Butter	101	101	0
Margarine	93	93	0
Lard	8	8	0
Cooking Fat	87	87	0
Cheese	8	8	0
Tea	21	21	0
Cocoa	15	15	0
Coffee and Coffee Essence	22	22	0
Baking Powder	11	10	1
Golden Raising Powder	8	8	0
Gelatine Powder	17	16	1
Sweetening Tablets	1	1	0
Ground Almond Substitute	1	1	0
Almond Paste and Almond Paste Substitute	4	4	0
Dessert Sauce	1	1	0
Junket Powder	1	1	0
Dried Fruit	1	1	0
Blackcurrant Syrup	2	2	0
Soya Flour	1	1	0
Medicated Chocolate	1	1	0
Meat and Fish Paste	19	19	0
Curry Powder	7	6	1
Whale Meat Sausage	1	1	0
Sausage Meat	2	2	0
Fish Roll	1	1	0
Mustard and Mustard Compound	12	12	0
Pickles and Sauce	21	21	0
Pepper and Pepper Compound	16	16	0
Vinegar	20	18	2
Soup	4	4	0
Herbs	4	4	0
Gravy Browning	4	4	0
Mineral Water	12	12	0
Cider	12	12	0
Beer	16	16	0
Salad Cream	1	1	0
Sugars	34	34	0
Starchy Foods	47	46	1
Drugs	46	40	6
	2068	1991	77

Adulteration rate of all samples 3.72%

Number of samples examined 2068

“ “ “ adulterated 77

“ “ “ genuine 1991

Of the 2068 samples that were examined, 331 were sealed (having been divided in accordance with the provisions of section seventy of the Food and Drugs Act, 1938) and 1737 were unsealed or informal samples.

More than three-quarters of the number of samples were informal, but the saving of time and trouble involved in the collection of these samples, applies only to the method of sampling.

Comparative figures for adulteration in Bristol for the last five years are given in Table 3.

Table 3

	1943	1944	1945	1946	1947
Total number of samples ...	1479	1996	2353	2272	2068
Milk, per cent. adulterated ...	4.65	2.78	5.54	5.82	4.92
Foods (other than milk) per cent. adulterated	4.50	5.84	4.33	2.56	1.61
Drugs, per cent. adulterated ...	11.11	0	5.26	2.84	3.22
Total per cent. adulterated ...	4.80	3.46	5.18	4.84	3.72

Milk.

Of the 65 samples condemned, four contained added water, and were also deficient in fat.

Thirty-seven samples gave evidence of the addition of water, and 24 were deficient in fat.

The figures of analysis for the samples condemned for double adulteration are as follows.

Table 4

Number of sample	Fat %	Non-fatty solids %	Freezing point depression °C.	Result
Y.1	2.70	8.05	0.499	5.3% Added Water, and 5% Deficient in Fat.
Z.111	2.70	8.30	0.520	2.3% Added Water, and 8% Deficient in Fat.
Z.185	2.75	8.10	0.525	4.7% Added Water, and 4% Deficient in Fat.
Z.186	2.50	8.05	0.526	5.3% Added Water, and 12% Deficient in Fat.

Table 5 gives the figures for samples containing added water.

Table 5

Number of sample				Result
	Fat	Non-fatty solids	Freezing point depression °C	
V. 47	3.90	7.00	0.439	17.7% Added Water
V. 48	3.10	7.05	0.439	17 % " "
V. 49	2.70	5.70	0.359	32.9% " "
V. 50	3.10	7.05	0.448	17 % " "
V. 90	3.40	8.10	0.513	4.7% " "
V. 159	3.10	7.90	0.468	7 % " "
V. 160	3.10	7.15	0.425	15.9% " "
V. 161	3.80	7.70	0.464	9.4% " "
V. 162	3.00	7.60	0.456	10.6% " "
V. 288	3.05	7.80	0.475	8.2% " "
V. 293	3.40	8.25	0.500	3 % " "
V. 294	4.20	8.30	0.518	2.4% " "
V. 297	3.35	8.30	0.518	2.4% " "
V. 298	4.95	8.30	0.527	2.4% " "
V. 299	3.55	8.10	0.509	4.7% " "
V. 327	3.25	7.05	0.426	17.1% " "
V. 328	3.10	6.85	0.412	19.4% " "
V. 329	3.00	6.50	0.403	23.5% " "
V. 330	3.85	7.50	0.453	11.8% " "
V. 344	2.44	4.95	0.300	41.8% " "
W. 43	3.25	8.00	0.514	5.9% " "
W. 44	2.95	7.70	0.514	9.4% " "
W. 45	2.80	7.80	0.504	8.2% " "
W. 46	3.30	7.70	0.502	9.4% " "
W. 47	3.30	7.60	0.487	10.6% " "
W. 48	3.10	7.70	0.513	9.4% " "
W. 49	3.00	8.10	0.519	4.7% " "
W. 50	3.05	7.70	0.516	9.4% " "
W. 67	3.65	7.90	0.517	7 % " "
W. 233	5.70	8.00	0.475	5.9% " "
Y. 93	3.10	8.15	0.500	4.1% " "
Y. 139	3.25	8.15	0.503	4.1% " "
Y. 166	2.85	6.75	0.430	20.6% " "
Y. 171	2.55	6.05	0.360	28.8% " "
Y. 172	3.05	7.80	0.475	8.2% " "
Y. 263	2.85	6.45	0.401	24.1% " "
Z. 77	3.40	8.20	0.518	3.5% " "

Table 6

				Samples of milk condemned for	
				deficiency in fat	added water
1st Quarter	...	...		1	5
2nd "	...	...		18	11
3rd "	...	...		2	8
4th "	...	...		3	13
				—	—
				24	37
				—	—

Eighty-seven samples were reported as abnormal being low in non-fatty solids, and 22 as suspicious due to slight deficiencies of fat or very small amounts of water.

The following are the figures for the suspicious samples.

Table 7

Number of sample	Fat %	Non-fatty solids %	Total solids %	Freezing point depression °C
V. 89	3.40	8.50	11.90	0.529
V. 91	4.15	8.35	12.50	0.535
V. 92	3.35	8.45	11.80	0.531
V. 93	3.25	8.35	11.60	0.523
V. 94	3.40	8.40	11.80	0.528
V. 95	3.40	8.40	11.80	0.527
V. 96	3.40	8.40	11.80	0.534
V. 101	3.35	8.40	11.75	0.530
V. 104	3.30	8.40	11.70	0.528
V. 112	2.90	8.60	11.50	—
V. 391	3.70	8.40	12.10	0.526
W. 54	2.90	8.45	11.35	—
W. 118	2.90	8.60	11.50	—
W. 119	2.90	8.70	11.60	—
Y. 26	3.54	8.23	11.77	0.515
Y. 87	2.90	8.80	11.70	—
Y. 110	2.55	8.60	11.15	—
Y. 124	2.90	8.65	11.55	—
Y. 198	3.50	8.50	12.00	0.522
Z. 81	3.40	8.45	11.85	0.515
Z. 85	3.70	8.35	12.05	0.526
Z. 106	2.90	8.50	11.40	—

Average composition of genuine milks for 1947.

Table 8

Month	Number for each month	Specific gravity	Fat %	Non-fatty solids %
January ...	138	1031.6	3.80	8.82
February ...	43	1031.3	3.77	8.74
March ...	72	1031.2	3.74	8.70
April ...	45	1031.2	3.62	8.68
May ...	70	1031.3	3.45	8.70
June ...	106	1031.5	3.54	8.73
July ...	79	1031.3	3.63	8.71
August ...	59	1031.3	3.57	8.72
September ...	101	1031.3	3.69	8.72
October ...	172	1031.5	3.84	8.81
November ...	125	1031.4	3.91	8.78
December ...	138	1031.3	3.96	8.77
Average for year ...	1148	1031.4	3.75	8.75
	(total)			

This table does not include suspicious and abnormal samples.

The average figures for all samples of milk examined during the year were as follows.

Specific gravity	1031.1
Fat	3.71%
Non-fatty solids	8.68%

Freezing Point of Milk.

The Horvet apparatus has been in constant use during the year and the test has proved invaluable in differentiating between abnormal and suspicious samples, besides confirming beyond doubt those samples adulterated by the addition of water.

It is a matter of regret that such valuable evidence of the addition of water is still without official recognition and no mention of it is made upon the analyst's certificate although in some instances it has been accepted in evidence.

One hundred and sixty-seven determinations were made throughout the year and the average freezing point depression for genuine samples was 0.542.

Food and Drugs Samples other than Milk.

In the following review of food and drug work it is proposed to indicate where possible the purport of the relevant legislation concerning the particular article of food or drug.

Adulterated samples other than Milks.

Table 9

Number of sample	Nature of sample	Result of analysis
V. D. 6	Curry Powder	Contained an excess of Salt (NaCl) to the extent of 6%.
V. D. 7	Baking Powder	Deficient in carbon dioxide to the extent of 32.5%.
V. D. 38	Gelatine Powder	Contained 20 parts per million of Copper in excess of the amount permitted.
V. D. 68	Tincture of Iodine	Contained an excess of Potassium Iodide to the extent of 17.4% and was deficient in Iodine to the extent of 1.2%.
V. D. 69	Tincture of Iodine	Contained an excess of Potassium Iodide to the extent of 8% and of Iodine to the extent of 1.2%.
V. D. 70	Tincture of Iodine	Contained an excess of Potassium Iodide to the extent of 12.9% and was deficient in Iodine to the extent of 2%.
W.D.138	Vinegar	Contained one hundred and fifty nematode worms per millilitre.
X. D. 39	Tincture of Iodine	Deficient in Potassium Iodide to the extent of 11.7% and in Iodine to the extent of 3.2%.
X. D. 40	Tincture of Iodine	Deficient in Potassium Iodide to the extent of 14.5% and contained an excess of Iodine to the extent of 4.7%.
X. D. 41	Tincture of Iodine	Contained an excess of Iodine to the extent of 27.8%.
X. D. 56	Crushed Oats	Infested with webbing and larvæ of the Lepidoptera group.
X. D. 67	Vinegar	Contained fifteen nematode worms per millilitre.

Ice Cream

Sixty-three samples were submitted under this heading and all were returned as genuine. Only two samples contained 8% or more of fat, the remainder containing a mean percentage of 2.5% of fat. Metals and preservatives were not detected.

The position is most unsatisfactory and a fat standard for ice cream is long overdue, but obviously will not be enforced until the national position in respect of fats improves. The Standard suggested several years ago by the Ice Cream Manufacturers' Association was not less than 8% milk fat.

Fatty substances

The following samples were examined and all found to be genuine.

101	samples	of	butter
93	„	„	margarine
8	„	„	cheese
8	„	„	lard
87	„	„	cooking fat

The Reichert figure on the samples of butter varied between 23.0 and 34.7 giving a mean of 28.9. The mean moisture figure was 13.5%. The maximum permitted moisture content of butter and margarine is 16.0%, Food and Drugs Act, 1938, sec. 32.

Butter fat content of margarine was well below 10% in all cases. The following are the mean analytical figures.

Moisture	13.8%
Polenske	4.1%
Reichert	4.1%

Boric acid preservative did not exceed 0.25% which is the amount permitted, in any case.

The fat content of the samples of cheese varied between 20.8% and 41.1% giving a mean figure of 34.3%. The average amount of moisture was 12.7% and the mean Reichert figure was 29.

All of the samples of lard were genuine, and consisted of 100% hog's fat. The mean figures of the analysis were as follows:— Zeiss at 40°C. 50, Iodine No. 57.

All of the samples of cooking fat consisted of 100% fat. Since cooking fats are generally used as a substitute for lard, one would expect them to contain no moisture and this was found to be the case in all samples. The mean figures for the samples of cooking fat were:

Zeiss at 40°C.	47.5
Valenta test	65°C.
Iodine Value	60.4
Melting Point	39°C.

Tea

Twenty-one samples were examined. They all gave typical microscopical appearances and were genuine. It is now many years since any difficulties were experienced with teas and crude additions have long been suppressed.

The mean analytical figures were as follows:

	%
Moisture	7.52
Total ash	5.65
Soluble ash	4.10
Alkalinity of Soluble ash (as K ₂ O)	1.46
Silica	0.29

Coffee

Fifteen samples of Coffee and one of Coffee and Chicory were examined. The average specific gravity of a 10% decoction of the samples of coffee was 1012.6.

The sample of Coffee and Chicory gave a specific gravity figure of 1019.1 for a 10% decoction.

Microscopical examination revealed typical structures in each case.

Coffee and Chicory Essence.

Seven samples were examined the average figure for Caffeine being 0.28%, S.R. and O. No. 389 1945 lays down a minimum of 0.5% caffeine for liquid coffee essence and 0.25% caffeine for liquid coffee and chicory essence. In all cases Benzoic Acid was absent. Coffee extracts are permitted a maximum of 450 parts per million of benzoic acid, Preservatives (etc., in Food) Regulations 1925 and 1927.

Cocoa.

Fifteen samples of cocoa were submitted, giving the following mean analytical figures:

	%
Moisture	5.98
Ash	6.60
Insoluble Ash	1.56
Alkalinity as K ₂ O	2.18
Fat	22.74

No foreign starch and no arsenic was detected in any of the samples.

Baking Powder.

Eleven samples of Baking Powder were examined, one of which was deficient in available carbon dioxide.

The figures for the other 10 samples were:

Table 10

Number of sample	Total CO ₂	Available CO ₂	Residual CO ₂
V.D. 8	11.3	10.9	0.4
V.D. 9	14.9	14.6	0.3
V.D. 10	12.0	11.4	0.6
V.D. 97	15.0	13.8	1.2
V.D. 98	13.7	12.3	1.4
V.D. 99	16.4	15.9	0.5
V.D. 100	14.9	13.9	1.0
Z.D. 167	13.5	12.4	1.1
Z.D. 168	13.7	12.6	1.1
Z.D. 169	13.2	12.0	1.2

Apropos Baking Powder etc., the Fluorine in Food Order 1947 No. 1134 prescribes maximum limits for the fluorine content of acid phosphates used for food purposes and of goods containing acidic phosphates. The significance of fluorine in human metabolism was commented upon in the Report for 1946 and it is apparent that the body requires the maintenance of a very delicate balance as indicated in studies of fluorine in water supplies. Thus a quantity of 1 part per million in water seems essential whereas 5 parts per million is decidedly excessive particularly to young children. The laboratory is paying particular attention to the question of fluorides in milk and will of course now be required to watch carefully foods containing acid phosphates.

It is of interest to note that as stated in my report for 1946 sodium fluoride to give 1 part per million of fluorine was being added to the New York water supply and just recently the retiring United States surgeon general told a Congressional Committee in Washington "every child in America ought to be receiving treatment" (brushing the teeth with sodium fluoride) and other experts said that four applications in a child's life are sufficient at 3, 7, 10 and 13 years—and each treatment takes about one minute except for the cleaning of the teeth where that is necessary.

Golden Raising Powder.

Eight samples of Golden Raising Powder were examined, all of which were genuine.

The mean figures of analysis are appended.

Number of samples	Total CO ₂	Available CO ₂	Ash %
8	9.62	8.74	33.97

The Schedule to S.R. and O. 1944 No. 46 prescribes standards for Baking Powder and Golden Raising Powder. Baking Powder shall yield not less than 8 per cent of available carbon dioxide and not more than 1.5 per cent of residual carbon dioxide and Golden Raising Powder not less than 6 per cent available and not more than 1.5 per cent residual carbon dioxide as determined by the method laid down in the Schedule.

Gelatine Powder.

Seventeen samples were examined, one sample being condemned for an excess of copper. In all the other 16 samples zinc, arsenic, lead and copper were within accepted limits.

A product known as edible gelatine was created by S.R. and O. 1947 No. 161 and was defined as the clean wholesome protein which

- is obtained by extraction from collagenous material.
- is free from objectionable taste and offensive odour when in a warm five per cent aqueous solution.
- contains when air dried, not more than 3.25 per cent by weight of mineral matter and
- contains when air dried in each million parts by weight, not more than 1.4 parts by weight of arsenic (expressed as As_2O_3) 10 parts by weight of lead, 30 parts by weight of copper or 100 parts by weight of zinc.

Sweetening Tablets.

One sample was examined under this heading and contained 0.11 grains of saccharin and 0.07 grains of dulcin per tablet.

Medicated Chocolate

One sample was examined and this was reported as genuine.

Beer.

Sixteen samples of beer were examined and all were genuine. No arsenic was detected, and the amounts of Sulphur Dioxide found were within the limit of 70 parts per million.

Cider.

Twelve samples were examined, the amounts of Sulphur Dioxide, Lead and Copper found being within the prescribed limits.

Curry Powder.

Seven samples of Curry Powder were examined. One sample was returned as adulterated on account of an excess of Salt (NaCl). The average figures for the other 6 samples were as follows:—

Moisture	12.25
Ash	8.31
Salt (NaCl)	3.45

Arsenic was absent in all samples and only two samples contained small amounts of lead.

Non-alcoholic drinks.

Twelve samples of mineral water were submitted, and all satisfied the requirements of the Preservative Regulations in regard to Sulphur dioxide and Benzoic acid.

The Food (Soft Drinks) Order, S.R. and O. 1946 No. 945 revoked and re-enacted the Soft Drinks Order 1943 the principal modifications being

1. The definition of "soft drink" is amended to provide that a product which is used or intended to be used both as a medicine and as a drink shall be regarded as a soft drink for the purposes of the order.
2. Conditions are prescribed under which Quinine Tonic water and Indian Tonic water may be manufactured and sold. In addition to prescribing the ingredients and maximum price the order requires such tonic water to bear a label with the words "contains not less than $\frac{1}{2}$ grain of quinine (calculated as quinine sulphate B.P.) per pint."
3. The sugar content of the drinks listed in Part II of the First Schedule is increased and the saccharin content reduced.

Salad Cream.

One sample of salad cream was examined and found to conform to the Food Standards for salad cream in respect of edible oil and egg yolk. The Schedule to S.R. and O. 1945 No. 1177 states that salad cream, mayonnaise and any other salad dressing shall contain not less than 25 per cent by weight of edible vegetable oil and not less than 1.35 per cent by weight of egg yolk solids.

Gravy Browning.

Four samples were examined under this heading and all proved to be genuine. Some of the figures for analysis are as follows. Three of these samples were liquid and one was a powder.

	W.D.152	W.D.153	W.D.154	W.D.155
Water %	49.49	8.72	61.77	42.68
Ash %	9.69	21.35	14.34	6.52
Salt (NaCl)	8.44	19.25	12.86	5.62

Herbs.

Four samples were examined and microscopical examination proved them to be genuine samples of herbs.

Mustard and Mustard Compound.

Twelve samples were examined, three of which were mustard compound. All were reported as genuine.

Mustard in powder form is the subject of two orders. In 1944 Mustard compound, mustard or mustard condiment was defined as containing not less than 0.35 per cent of allyl isothiocyanate. The Ministry of Food received representations from manufacturers of mustard that the product obtained from imported brown mustard had a lower allyl isothiocyanate content than mustard made with a similar proportion of English brown mustard. Owing to the difficulties of obtaining adequate supplies of home grown and imported brown mustard the manufacturers asked the Ministry to authorise, for a temporary period, the sale of mustard, the allyl isothiocyanate content of which was not less than 0.28 per cent. This was agreed and enforced by S.R. and O 1947 No. 650.

Blackcurrant Syrup.

Two samples were examined and both were found to be genuine. The amounts of Sulphur dioxide detected were within the limits, and the Vitamin C content was 24 mgrms. per fluid oz. in each case.

Pickles and Sauce.

Twenty-one samples were examined for the presence of Benzoic Acid preservative with negative results in all cases.

Drugs.

The forty-six specimens of drugs consisted of the following.

Camphorated oil	4	Compound Liquorice Powder	2
Bicarbonate of Soda	1	Epsom Salts	4
Boric Ointment	8	Glauber Salts	4
Zinc Ointment	8	Tincture of Iodine	7
Seidlitz Powder	4	Sulphur Ointment	4

Six samples of Tincture of Iodine were condemned for not complying with the requirements of the British Pharmacopoeia, 1932.

Pepper and Pepper Compound.

Sixteen samples were examined, one of which was compound. The average figures for pepper were as follows.

	%
Moisture	11.6
Ash	2.0
Silica	0.13

The highest amount of silica found was 0.25%. All the samples showed the usual microscopical appearances and were genuine.

The pepper compound gave the following figures.

	%
Moisture	10.4
Ash	2.4
Silica	0.1
Microscope	pepper and wheaten starch

Vinegar.

Two of the 20 samples of vinegar submitted were condemned on account of the presence of vinegar eels. The mean figures for the genuine samples are as follows.

	Malt	Artificial
Specific Gravity	1013.5	1007.7
Total Solids %	1.59	0.28
Ash %	0.22	0.02
Acetic Acid %	4.27	4.37

Arsenic was well below the limit in all cases.

The commonly accepted minimum standard for vinegar for the purpose of the Food and Drug Act is 4 per cent w/v of acetic acid. Examinations have been made throughout the year for the differentiation of vinegars and in all cases the samples were correctly described.

Sugars.

Thirty-four samples of sugar were examined, consisting of the following varieties.

Description	No. of samples
Jam	11
Sugar	21
Marmalade	1
Lemon Curd	1

The samples of jam satisfied the preservative regulations.

The soluble solids ranged from 68.1 to 73.8 per cent as obtained from the immersion refractometer, giving an average figure of 71.6 per cent, which is well above the standard of the Food Manufacturers' Federation *i.e.*, 68.5 per cent.

The fruit content as obtained from the insoluble solids exceeded the amount guaranteed in all cases.

Twenty-one samples of sugar were examined and contained 99 to 100 per cent sucrose with very little ash and moisture and no trace of tin.

One sample of marmalade and one of lemon curd were examined and both found to be genuine.

Almond Paste Substitute.

Four samples were examined and gave the following results.

Number of sample	Sucrose	Water	Ash	Fat	Protein
V.D.131	51.9	15.6	0.45	7.2	10.2
V.D.132	55.5	14.3	0.81	17.9	10.6
Y.D.157	48.8	11.0	0.75	12.1	10.0
Z.D.183	49.5	11.9	1.40	6.1	10.6

These products were considered satisfactory and showed excellent keeping qualities.

A further sample of almond substitute and the almond paste prepared from it showed evidence of fermentation, and were considered unfit for consumption.

Dessert Sauce

One sample was examined and found to be genuine.

Junket Powder.

The figures for the one sample examined are as follows.

	%
Moisture	5.36
Ash	9.98
Fat	0.66

Starchy Foods.

Forty-seven samples were examined, one sample of Crushed Oats being condemned for infestation. More than half the samples were primarily examined for infestation, the average figures of analysis for the other samples are as follows.

	Number of samples	Moisture %	Ash %	Protein %	Starch
Sponge Mixture	7	11.6	5.4	11.8	Wheat
Bun Flour	2	11.0	7.4	—	"
Pudding Mixture	1	11.1	1.4	—	"
Cake Mixture	1	10.7	3.1	—	"
Semolina	3	10.9	0.7	13.5	"
Self-raising Flour	4	10.9	—	—	"

S.R. and O. 1946 No. 157 concerning Self-Raising Flour replaces the 1944 order with the following modifications.

1. The minimum amount of available carbon dioxide required to be present in self-raising flour is reduced from 0.45 per cent to 0.40 per cent.
2. The maximum figure for total carbon dioxide is deleted.
3. A more detailed method for determining the amount of available carbon dioxide is prescribed.

Preservatives and Colouring Matter.

No evidence of preservative was found in milk or butter during the year. Considering that more than a thousand samples of milk were examined, it is very satisfactory to be able to report that not one sample contained formaldehyde, boric acid or artificial colouring matter.

All the samples conformed to the Preservative regulations in regard to SO₂ as the following table shows.

Table 11

Nature of sample	No. of samples	Highest estimation parts per million	Limit allowed
Cider	12	173	200
Beer	13	52	70
Gelatine Powder	10	468	1000
Mineral Water	10	54	70
Blackcurrant Syrup	2	346	350
Dried Fruit (b)	1	13	750
Jam	7	38	100
Marmalade	1	32	100

Meat and Fish Paste.

Nineteen samples were examined and all were reported as genuine, 17 samples were of Fish Paste and two were of Meat Past. The average figures of analysis were as follows.

	%
Moisture	66.2
Fat	7.6
Protein	14.9

Soya Flour.

One sample was submitted and gave the following figures:

	%
Moisture	7.17
Fat	20.09
Ash	4.57
Protein	36.47
Microscope	Typical epidermal cells

Beef Sausage Meat.

Two samples were examined and found to be genuine. The figures for analysis were as follows.

	Y.D.118	Y.D.120
Moisture	62.43	65.00
Ash	2.88	0.91
Protein	9.76	10.90
Fat	10.78	7.38
% Meat	47.54	49.38

The First Schedule to the Meat Products and Canned Meat (Control and Maximum Prices) Order 1947, imposes minimum meat contents for specified foods.

Pork sausages, pork sausage meat and pork slicing sausage shall contain not less than 50 per cent of meat of which at least 80 per cent shall consist of pork.

Beef sausage, meat and slicing sausage shall contain not less than 50 per cent of meat.

Sausages other than the above and meat roll or galantine shall contain not less than 30 per cent meat whilst the minimum for liver sausage is 45 per cent.

Fish Roll.

One sample was examined and the following results obtained.

Moisture	63.63
Ash	 2.52
Protein	11.23
Fat	 0.31
% Fish	54.5

Whale Meat Sausage.

One sample was submitted and gave the following figures.

Moisture	61.89
Ash	 1.30
Protein	13.06
Fat	 0.87
% Meat	47.50

Desiccated Soup.

Four samples were examined and reported as genuine. The figures of analysis were as follows.

	Z.D.171	Z.D.172	Z.D.173	Z.D.174
Protein	11.2	9.9	12.3	9.9

The Labelling of Food Order.

The Labelling of Food (No. 2) Order of December 1944 was made by the Minister of Food under Regulation 2 of the Defence (Sale of Food) Regulations 1943. Certain amendments have been made and are now consolidated and extended in the Labelling of Food Order 1946 with further amendments added during 1947. Enforcement of the order is in the control of the Minister of Food and Food and Drugs Authorities and not in the hands of the local Food Control Committees.

The labels of pre-packed foods now sold by retail must show

- The name and address or registered trade mark of the packer.
- The specific nature of the food to indicate to the purchaser its true nature.
- Unless a complete quantitative disclosure is made the names of the ingredients must be given in order of the proportions in which they are used, and
- The minimum net weight or measure in the packet.

Certain sections of the 1946 Order deal with the labelling of intoxicating liquors.

Exemptions given in the First Schedule to the Order include food retailed in plain wrappers, and assortments of foods packed as prepared meals and the partial or total exemption for certain specified foods already the subject of orders.

When a claim is made on a label or in an advertisement that the food, whether pre-packed or not (with exceptions for fruit, vegetables, liquid milk, shell eggs and fish) contains any of the vitamins or minerals declared in the Second Schedule, then the label or advertisement must also declare the minimum quantity of each such substance per ounce present. Moreover this type of claim can only be allowed in respect of the specific vitamins and minerals.

The order only applies to foods. The composition of medicines is covered by the Pharmacy and Medicines Act 1941. There are some substances which fall under both headings and the order specifically defines a Food as "Any article used as a food or drink for human consumption and includes any substance which is intended for use in the composition or preparation of food, any flavouring, sweetening matter or condiment or any colouring matter intended for use in food, and an article shall not be deemed not to be a food by reason only that it is also capable of being used as a medicine."

The Minister of Food has carried out an extensive review of labels of pre-packed foods and has issued a statement as a result of recommendations of the Medical Research Council, for the guidance of manufacturers proposing to make claims of the presence of vitamins and minerals.

The recommendations are based on the quantity of vitamin or mineral present in the amount of food which could ordinarily be consumed by a person in one day as compared with the normal daily requirement of the vitamin or mineral.

Briefly unless one-sixth of the normal daily requirement be present no claims should be made, if at least $\frac{1}{2}$ the daily requirement is present the food may reasonably be described as a "rich" or "excellent" source, and if at least the full daily requirement is present then a reference to the prevention or cure of disease associated with lack of the vitamin or mineral may be justified.

Consequent upon certain difficulties the Ministry of Food have indicated to enforcing authorities that cautions should be issued in the first instance to allow manufacturers to prepare new labels and to withdraw those found to be unsatisfactory. In some cases the Minister has issued licences permitting the use of existing stocks of labels for a limited period.

Summary of samples condemned under the Food and Drugs Act, 1938, during the year 1947.

V.47	Milk	) Samples taken unofficially.
V.48	"	) Referred to the appropriate County Council Food
V.49	"	) and Drug Section for necessary action.
V.50	"	)
V.83	"	Sample taken unofficially (whole consignment genuine).
V.90	"	Sample taken unofficially (referred to the appropriate County Council for any necessary action).
V.113	"	Cautioned by the Town Clerk.
V.123	"	No action taken.
V.159	"	) Samples taken unofficially, referred to the appropriate County Council Food and Drug Section
V.160	"	) for necessary action.
V.161	"	)
V.162	"	)
V.202	"	Sample taken unofficially (bulk genuine).
V.288	"	Dismissed under the Probation of Offenders Act on payment of £2 costs.
V.293	"	Sample taken unofficially) Repeat samples V.297,
V.294	"	" " " ") V.298, and V.299.
V.297	"	)
V.298	"	) Cautioned by Town Clerk.
V.299	"	)
V.327	"	)
V.328	"	) Case not yet heard.
V.329	"	)
V.330	"	)
V.344	"	Fined £5
V.365	"	Sample taken unofficially (bulk genuine).
V.370	"	" " " " (" " ")
W.10	"	" " " " (whole consignment genuine).
W.43	"	) " " ")
W.44	"	) " " ") Repeat samples W.47,
W.45	"	) " " ") W.48, W.49 and W.50
W.46	"	) " " ")
W.47	"	)
W.48	"	)
W.49	"	) Cautioned by Town Clerk.
W.50	"	)

W.67	,	Samples taken unofficially) Repeat samples genuine.
W.68	"	" " ") " " "
W.83	"	" " " (bulk genuine).
W.94	"	" " " (" ")
W.95	"	" " " (" ")
W.120	"	" " " (" ")
W.128	"	" " " (" ")
W.152	"	" " " (repeat sample unobtainable).
W.189	"	" " " (bulk genuine).
W.233	"	Samples taken unofficially (repeat sample genuine).
Y.1	"	" " " (" " ")
Y.77	"	Fined £1
Y.86	"	) Referred to the appropriate County Council for the
Y.88	"	) necessary action.
Y.93	"	Cautioned by Town Clerk.
Y.96	"	Sample taken unofficially (referred to appropriate County Council for the necessary action).
Y.108	"	Sample taken unofficially (bulk genuine).
Y.139	"	Cautioned by Town Clerk.
Y.166	"	Sample taken unofficially, repeat samples Y.171 and Y.172.
Y.171	"	) Case dismissed.
Y.172	"	)
Y.263	"	No proceedings taken.
Z.77	"	Cautioned by Town Clerk.
Z.109	"	Sample taken unofficially (bulk genuine).
Z.111	"	" " " repeat sample genuine.
Z.119	"	Whole consignment when bulked proved to be genuine.
Z.142	"	Sample taken unofficially, repeat sample genuine.
Z.145	"	" " " (bulk genuine).
Z.185	"	) " " " Repeat samples genuine.
Z.186	"	) " " " " " "
V.D.6	Curry Powder	Cautioned by Town Clerk and stock of Curry Powder destroyed.
V.D.7	Baking Powder	Sample taken unofficially (repeat samples unobtainable).
V.D.38	Gelatine Powder	Sample taken unofficially (repeat sample genuine).
V.D.68	Tincture of Iodine	Cautioned by Town Clerk.
V.D.69	" " "	" " " "
V.D.70	" " "	" " " "
W.D.138	Vinegar	" " " " (infested stock destroyed).
X.D.39	Tincture of Iodine	Sample taken unofficially (repeat sample V.D.70).
X.D.40	" " "	" " " (" " V.D.69).
X.D.41	" " "	" " " (" " V.D.68).
X.D.56	Crushed Oats	" " " (infested stock destroyed).
X.D.67	Vinegar	" " " " " "

PART II.

Pharmacy and Poisons Act, 1933.

Two samples were examined under this act, one being a sample of Lysol Tablets. The labelling of this sample was misleading, and should have stated more exactly the Cresol content of each tablet. Further the word POISON should have been given more prominence on the container.

The other a sample of Universal Petroleum (Dinitrocresol) which contained 1.3% w/w of Dinitrocresol.

A few comments upon the 1933 and the later Pharmacy and Medicines Act 1941 will be appropriate.

The 1933 Act was designed to prevent as far as possible poisonous substances from getting into the hands of irresponsible persons. Issued with the Act is a Poisons list and Part 1 of that list includes either extremely poisonous substances or poisons used in the treatment of human ailments. Such poisons can only be sold by authorised sellers who are in the main registered pharmacists and certain definite conditions are applied to such sales. The control of such poisons is entirely the responsibility of the Pharmaceutical Society and its inspectors. Part II of the list contains those poisons in more general use and which may be sold by persons and on premises licensed by the local authority subject to the conditions that the label bears the word "POISON," the name and proportion of the poison, and the name and address of the vendor. Thus it is no longer possible for vendors to hawk poisons or for poisons to be offered for sale in automatic machines.

It is obvious therefore, that Part II is the concern of sampling officers to the Local Authority. Analysts are frequently asked to ascertain whether such products as horticultural insecticides, disinfectants and household ammoniacal solutions, and hair dyes come within the scope of the Act and whether the article does in fact contain the amount of poison specified on the label.

The Poisons list is comprehensive but one or two anomalies appear to exist in respect of household cleaning and bleaching fluids, some phenolic substances, hydrogen peroxide, sodium hypochlorite and other corrosive chemicals which can be considered as poisons and yet no control is placed upon their sale. There can be no doubt that a would-be suicide could do himself considerable harm by consuming such substances and there is every justification for bringing them within the Act.

The Pharmacy and Medicines Act of 1941 amends the 1933 Act in certain of its aspects and in particular adds three new sections for enforcement by the Pharmaceutical Society or the Food and Drug Authority.

Two sections refer to illegal advertisements and a third requires that a declaration of composition shall appear on the label of any article recommended as a medicine."

The Act provides for the repeal of the medicine stamp duty whereby patent medicines may no longer be sold without declaration of composition.

The section concerning declaration of composition is a great advance, but it is insufficient for the commodity to be a medicinal substance; it must also be recommended as a medicine before it is necessary to declare the composition. Several important and in the main friendly legal actions have been taken to establish the question of "recommendation." The mere mention of a dose or the words "tonic" or "laxative" may suffice to bring the product within the scope of the Act.

Inevitably a number of test cases will result in borderline cases.

PART III.

Fertilisers and Feeding Stuffs Act

Table 12—Fertilisers

No. F.	Nature of Sample	% Phosphoric Acid ($P_2 O_5$)						% (N)		Fineness	
		Soluble			Insoluble			Nitrogen		G	F.
		G	F.	G	F.	G	F.	G	F.		
1	Sulphate of Ammonia							20.6	20.9		
2	" "							21.0	20.9		
3	" "							20.6	20.3		
4	" "							21.0	20.9		
5	Nitrate of Soda							16.0	15.9		
6	" "							16.0	15.8		
7	"Basic Slag"					8.25	8.7			80	93
8	" "					8.25	8.0			76	76
9	General Fertiliser	3.5	3.0	3.5	5.3			7.0	6.4		

G=Guaranteed.

F=Found.

Table 13—Feeding Stuffs.

No. F. F.	Nature of sample	Oil %		Albuminoids %		Fibre %	
		G	F.	G	F.	G	F.
10	No. 1 National Poultry Food Balancer Meal	4.0	5.0	20.0	16.1	9.0	9.1

Of the ten samples of fertilisers and feeding stuffs examined seven fell within the limits of variation allowed by the Act. One sample of National Poultry Food Balancer Meal was deficient in Albuminoids (protein) and had an excess of oil. One sample of General Fertiliser had an excess of Insoluble Phosphates ($P_2 O_5$) and a sample of Basic Slag was outside the limits of variation with regard to fineness, but this was not to the prejudice of the purchaser.

Recent legislation, S.R. & O. 1947 No. 1263, relating to Feeding Stuffs reduces the minimum percentages of animal protein rich substances in all National Pig and Poultry compounds except National Baby Chick Food and abolishes the required minimum of these substances in National Cattle Food No. 3.

PART IV.

Waters and Sewage Chlorination.

Three hundred and sixty waters were examined, the various sources of which are tabulated below.

Table 14.

Source	Total
City Water supplied from tap at Canynge Hall	7
City Water supplied from tap at Beckington Rd., Knowle	47
Corporation Institutions and Clinics	7
Private Houses	16
West Gloucester supply at Downend and Frenchay	43
Portishead supply at Ham Green Hospital	23
Portishead Private House	1
Springs, lakes and wells	28
Swimming Bath waters	145
Subsoil percolation water	6
Sewage and Trade effluent	12
Ships in port	7
Drainage	3
Miscellaneous	15
	360

The City water as supplied by the Barrow Reservoir is sampled in the laboratory and the Sherbourne spring water supplying a portion of the southern part of the city is taken regularly at Knowle.

The mean figures of analysis are appended, together with those of the West Gloucester and Portishead public supplies, which serve Corporation institutions at Downend, Frenchay and Ham Green.

Table 15.

Source	Bristol Supply		Taps at Dowend and Frenchay	Tap at Ham Green
	Tap at Canyng Hall	Tap at Beckington Rd., Knowle		
Number of analyses ...	7	47	43	23
Total solids	31.0	31.0	36.6	44.2
Mineral matter	29.3	29.4	34.5	40.8
Loss on ignition	1.7	1.6	2.1	3.4
Chlorine as Chlorides ...	1.4	1.4	3.6	3.1
Total Oxidised Nitrogen	0.06	0.06	0.06	0.07
Free Ammonia	0.0029	0.0023	0.0023	0.0068
Albuminoid Ammonia ...	0.0023	0.0016	0.0013	0.0027
Total Hardness (Clark's Scale)	16.4	18.8	17.8	24.4
Permanent Hardness (Clark's Scale)	4.0	4.2	3.7	6.2
pH	7.5	7.5	7.5	7.4

Waters

The above figures show that these public supplies possess great organic purity and only on a few occasions were the bacteriological counts rather higher than desirable.

Occasionally samples collected at Canyng Hall have given a very faint reaction for nitrite and only on a few occasions was any residual chlorine detected. This is probably due to distance from the reservoir and other factors such as age of mains and dead ends are likely to have some influence on these findings.

Water from the Sherbourne spring collected at Knowle gave well marked evidence of chloramine treatment showing only slight traces of nitrites. Free residual chlorine was not detected in the West Gloucester and Portishead supplies.

For the convenience of shipping at the Docks more adequate control was maintained both on supplies to ships and the water in the dock area. Throughout the year samples were examined from various points in the area and all proved to be satisfactory.

Mainly as a result of the prevalence of infantile paralysis an increasing amount of attention was paid to swimming baths. The Ministry of Health have recommended a minimum of 0.2 parts per million for the free chlorine and on a few occasions only did samples fall below this figure.

It would appear that by chloramination up to 2.0 parts per million chlorine residuals are tolerated without complaint from bathers and when the system of "break point" chlorination becomes fully operative it is expected that efficiency of chlorination will be increased and even higher residuals will be tolerated.

At the present time insufficient is known regarding the culpability of swimming baths in spreading water borne diseases and indeed in some quarters it is doubted whether the virus of the infantile paralysis disease is in fact water borne. On the other hand some authorities have little doubt of the dangers of its conveyance and chlorination still appears the best safeguard until more is known of the virus.

Sewage Chlorination.

The work has been continued keeping its experimental nature to the fore, and trying different methods of attack in order to achieve the best possible results.

During 1947 little development occurred from a chemical point of view, most of the alterations being of an engineering nature.

Frequent sampling of the river and of sewage was carried out during the season in order to control treatment.

In the light of experience of previous years it is proposed to experiment with direct treatment of the river and this will bring about increased laboratory work.

Investigation into certain trade wastes has been conducted and recommendations have been made for their harmless disposal.

A frequent check is kept on a small number of works to ensure that they comply with existing agreements and bye laws.

PART V.

Rag Flock Act.

Thirteen samples were examined to see whether they conformed to the standard of cleanliness laid down in the Rag Flock Acts 1911, and 1928 and the Rag Flock Regulations 1912. One sample contained 75 parts of chloride per 100,000 but was not reported adversely since it consisted principally of jute which is not specifically included in the Acts. The remaining samples complied with the requisite standard of a maximum of 30 parts of chlorine per 100,000.

The British Standards Institution in B.S. 1425 1948 deals comprehensively with the cleanliness of Fillings and Stuffings for bedding, upholstery, perambulators, cushions, tea cosies, dolls and other domestic articles. The preparation of standards for cleanliness was commenced in 1938 at the request of the National Bedding Federation but was suspended in 1939 to be restarted in February 1943 on behalf of the Amalgamated Union of Upholsterers.

Various chemical tests suggested as an index of cleanliness were found to be unreliable and unsatisfactory and bacteriological standards would be difficult if not impossible to apply in practice.

The main consideration is whether the material is clean or dirty in the sense in which the housewife regards it as clean or dirty; and some form of washing test, precisely specified which, in practice gives concordant reproducible figures as a measure of the dirt extracted, is the best index of cleanliness. A washing test using water without a detergent did not give reproducible results with different analysts and in different laboratories since the presence of oil and grease prevents the material being wetted and tends to mask other impurities.

The proposed Fenton test which uses a detergent solution of ammonia, methyl alcohol, acetone and water is not liable to this defect.

Such washing test however could not, of itself, be effective for the control of cleanliness of fillings, because small proportions of excrement, sputum and other dejecta necessarily contribute but inappreciably to the matter extracted by the washing test. Having regard to the analytical difficulties and the problem of obtaining representative samples, proof of such contamination is impracticable.

It was therefore, unanimously agreed to prepare a specification for each type of filling to incorporate not only a limiting standard of cleanliness by the washing test but also requirements for the necessary cleaning operations in the process of manufacture.

PART VI.

Miscellaneous Analyses

a. Infestation.

Thirty four articles were submitted for examination on account of infestation and thirteen were condemned as infested and one gave evidence of a heavy mould growth.

The following types of pests were identified, *Tyroglyphus* mite, *Ptinus tectus*, *stegobium paniceum*, *Ephestia*, *Tribolium confusum*, *cheyletus eruditus* and *gnathocerus cornutus*.

Five insects were submitted for identification. One found to be infesting a newly papered wall proved to be *Lathrid* plaster beetle, two proved to be *Sirex* or wood wasp and the remaining two a gnat and dog flea respectively.

b. General.

Under this heading 103 samples of a diverse character were examined and included the following:—

Thirteen samples of butter and margarine submitted for rancidity tests and ranging from no rancidity to advanced condition rendering the sample inedible.

Five milks examined for the presence of free chlorine, which was confirmed in two instances.

A variety of specimens such as macaroni cheese, fish galantine, evaporated milk, canned peaches, cognac, marmalade and canned stringless beans were examined for metals and in most cases no undue amounts were detected.

In the case of samples of sausages submitted for the detection of horseflesh it was only possible chemically to indicate the probability of such admixture. The only satisfactory test is the precipitin reaction and enquiries elicited the information that no facilities existed for such examination. The infrequency of the occurrence of such additions to sausages did not warrant the establishment of facilities to conduct the complex tests.

Some badly worn specimens of knives, forks and spoons were found to yield traces of metals in contact with dilute solutions of organic acids, and in view of the considerable number involved replating was considered to be a practical possibility.

Other interesting specimens in this category included a clay thought to be responsible for serious attack upon a piping system, a suet deficient in fat, a wine alleged to contain cider, and flour suspected to have been damaged by sea water.

A number of investigations were made at the request of the Ministry of Food and a small number of samples was submitted by the Contracts Department.

Judging by the rapid fall in the number of samples of Dried Milk examined for solubility it would appear that most of the war time emergency stores have now been cleared of their antiquated stocks.

c. Biochemical

43 specimens were examined under this section and included 23 bloods for lead, ten urines for Vitamin B1 and five breast milks for general analysis.

The lead in the bloods examined ranged from nil to the abnormally high figure of 1.47 mgrs. per 100 ml. of blood in one instance.

d. Toxicological.

50 specimens were investigated and included canned peas, sugar, peppermint sweets, sherry, bread, apricot jam, hydrogen peroxide, prunes and evaporated milks, all suspected of containing noxious substances but showing no abnormalities upon examination.

A water from a fish tank at the Zoological gardens was examined for toxic metals likely to cause the death of fish but no such metals were detected.

Several specimens of viscera were examined and traces of barbiturate were detected in the small intestines in one case, traces of the same drug in the stomach washings and cerebrospinal fluid in another case. In a third case no arsenic was detected in the liver and bowel contents and no alkaloids in the liver in a fourth case. A fifth case concerning a suspected abortion revealed evidence of quinine in the liver and stomach contents.

A urine was found to contain traces of arsenic and raised the question of the possibility of "normal" amounts of arsenic in such fluids.

A sample of hydrogen peroxide alleged to have caused dermatitis was passed as satisfactory with the possibility of idiosyncrasy in the complainant.

A fluid drawn from the chest of a patient was found to be free from cocaine and its substitutes.

e. Health Department samples (C.S.I.).

Twenty-five samples were examined and consisted of the following.

1 Butter	No rancidity.
3 Pate de foie	Satisfactory.
1 Sauerkraut	Fit for human consumption.
1 Cuban Honey	Fit for human consumption.
1 Oatmeal	No infestation.
1 Butter	Incipient rancidity. Early disposal advised.
1 Dried Apricots	Mould growth and tyroglyphid infestation.
1 U.S. Army Field Ration of Chopped Pork and Egg Yolks	Fit for human consumption.
1 Tinned Tongue	Fit for human consumption.
1 Bread	Presence of foreign body.
1 Flour S.R.	Deficiency of available carbon dioxide, but no infestation.
1 Butter	Satisfactory.
1 Dried Egg	Satisfactory.
2 Smoked Herring Spread ...	Unfit for human consumption.
1 Herring Tid-bits	Unfit for human consumption.
1 Articles of Clothing	No evidence of scorching or rust stains.
1 Undergarments	Inadequate rinsing at laundry, but unlikely to cause skin troubles.
1 Guavas in Syrup	Fit for human consumption. The guava is a pear-shaped fruit with a russet- coloured rind. The pulp is pink or white and of a sweet aromatic flavour.
2 Margarine	Advanced rancidity.
2 Melon and Ginger	Fit for human consumption, although of insipid taste, due probably to insuffi- cient ginger.

PART VII.

Gas Undertakings Act, 1920—1934.

The gas supplied by the Bristol Gas Company has been examined for calorific value, pressure and purity throughout the year in accordance with the Special Prescription of the Ministry of Fuel and Power (Gas Testing Section).

The work involved in adjusting and maintaining three electrical Fairweather continuous recording calorimeters at the testing places at Avon Street, Stapleton Road, and Canons Marsh is considerable; added to this is the weekly verification and averaging of the charts. Also, in order to ensure the satisfactory working of these instruments, they are dismantled and cleaned four times a year at the end of each quarter and any worn or damaged part replaced. Should there be a major break-down necessitating the return to makers of any section of the instrument, then tests of calorific value are carried out with a non-recording calorimeter, in the meantime, and the Controller of Gas Testing notified accordingly.

At the Avon Street testing place the record was available for 356 days, no non-recorder tests being carried out. The average calorific value for the year was 460 B.Th.U. per cubic foot. The maximum pressure was 12.5 inches (of water) and the minimum 2.2 inches.

The record was available at the Stapleton Road testing place for 348 days, one non-recorder test being done during the first quarter of the year. The average calorific value was 461 B.Th.U. per cubic foot. The maximum pressure was 9.2 inches (of water) and the minimum 2.5 inches.

At the Canons Marsh testing place the record was available for 322 days of the year, seven non-recorder tests were carried out during the first six months. The average figure for the year was 461 B.Th.U. per cubic foot and the maximum pressure 10.6 inches (of water), the minimum being 2.3 inches.

The minimum pressure figures are lower than usual, but this was due to a very severe spell of cold weather at the beginning of the year, when it was necessary to lower the pressure in order to conserve the stocks of gas to meet an abnormally heavy demand. However, it did not drop below the figure required by the regulations which is 2 inches (of water).

More than 300 tests for sulphuretted hydrogen were carried out during the twelve months with negative results in each case.

PART VIII.

Atmospheric Pollution.

The four stations established in the City for the measurement of the degree of pollution of the atmosphere have been operating throughout the year.

The pollution is measured by the collection and analysis of the soluble and insoluble matter which is deposited from the air in a deposit gauge and which consists of a large glass bowl of known area, connected with a glass reservoir. Each reservoir is replaced by a clean one on the last day of each month. As a precaution each station is inspected about the 20th of each month, particularly after heavy rainfall.

The monthly results with totals for the year are shown in the tables in tons per square mile and are also shown graphically. The blank periods in the early months of the year were due to loss of the glass reservoir by fracturing due to severe frosts. Modification to the shape of the bottle have been suggested to minimise this trouble. The bottles are already lagged and boxed to give some protection.

The graph indicates clearly the degree of pollution and shows the seasonal peaks in the winter months. The Shaftesbury Crusade figures are typical for an industrial area, the Waterworks site is best described as a business or office location since many industries are moving from the City centre, and Blaise Castle typifies a rural area being just slightly better than conditions prevailing in the residential area of the Zoological Gardens.

Besides the deposit gauges provision is made at each site for the measurement of sulphur dioxide in the atmosphere using the well established lead peroxide method. During the year the cowl covering over the cylinders was replaced by a louvered box which the Department of Scientific and Industrial Research recommend as more suitable and likely to give results less influenced by rainfall.

In July five more stations were set up in the Avonmouth area although to date are operative only for sulphur dioxide. The supply position with respect to deposit gauges is very difficult but these will be installed as soon as practicable. In September one site at the St. Andrews Cold Store was abandoned in favour of a more convenient station in the Dock area.

Late in the year a further survey was proposed by the Health Committee in collaboration with the Portishead Rural District Council and in December six sites were selected and the lead peroxide cylinders were installed on the 1st January 1948. Again supply difficulties have prevented the establishment of deposit gauges.

Nevertheless the interest in the question of atmospheric pollution has been fully maintained as was evidenced by a lecture delivered in December by your Analyst to the Regional Smoke Abatement Council.

Further it is hoped that the fifteen stations will soon be fully equipped and this represents a considerable advance upon the four stations operating at the beginning of 1947.

Nationally the problem is well to the fore in connection with Town Planning schemes and the establishment of smokeless zones, although a warning was issued recently by Dr. Dobson the Chairman of the Atmospheric Pollution Research Committee, that such zones must be of considerable area if any success is to be achieved.

YEAR 1947.

Composition of solids collected in deposit gauge at Blaise Castle, Henbury, in tons per square mile.

Table 16

Month	Rainfall in inches	Total Solid matter (suspended and dissolved)	Insoluble solid matter			Total dissolved matter	Sulphate (as SO ₃)	Chlorine (Cl.)	Lime (CaO)
			Tar	Carbonaceous matter other than tar	Mineral matter (ash)				
January	...	...	No figures available			...	...	...	...
February	1.00	1.91	0.05	0.23	0.26	1.37	1.02	0.67	0.40
March	4.60	13.71	0.19	0.92	1.44	11.16	5.83	2.15	1.09
April	2.80	7.33	0.19	1.66	1.89	3.59	0.94	0.14	0.12
May	3.00	9.18	0.17	2.78	2.34	3.89	1.69	0.65	0.38
June	1.52	7.64	0.18	1.73	2.28	3.45	1.44	0.62	0.32
July	3.30	8.53	0.05	1.60	1.82	5.06	2.19	1.27	0.24
August	1.03	4.26	0.04	0.87	1.51	1.84	0.46	0.12	0.08
September	1.52	5.49	0.04	0.85	1.65	2.95	0.81	0.19	0.07
October	0.52	6.69	0.08	1.30	2.29	3.02	1.99	0.27	0.38
November	2.66	10.19	0.12	3.67	1.71	4.69	0.60	0.54	1.43
December	1.96	5.97	0.02	0.71	0.85	4.39	1.28	0.71	0.21
Totals for the year 1947...	23.91	80.90	1.13	16.32	18.04	45.41	18.25	7.33	4.72
Mean monthly deposit	2.17	7.35	0.10	1.48	1.64	4.12	1.66	0.66	0.43

YEAR 1947.
Composition of solids collected in deposit gauge at Zoological Gardens, Clifton, in tons per square mile.

Table 17

Month	Rainfall in inches	Total Solid matter (suspended and dissolved)	Insoluble solid matter			Total dissolved matter	Sulphate (as SO ₃)	Chlorine (Cl.)	Lime (CaO)
			Tar	Carbonace- ous matter other than tar	Mineral matter (ash)				
January	2.30	7.26	0.11	1.53	1.56	4.06	0.70	1.49	0.97
February	..	..	..	No figures available	..	..	..	..	..
March	6.10	15.38	0.18	1.25	3.08	10.87	4.84	2.44	1.87
April	3.30	16.10	0.29	2.68	3.52	9.61	2.80	1.22	1.50
May	2.80	11.78	0.12	1.97	3.32	6.37	2.15	0.25	0.73
June	1.60	10.47	0.09	1.92	2.53	5.93	2.51	0.52	0.97
July	3.30	9.52	0.17	1.56	2.34	5.45	1.80	1.19	0.81
August	1.15	6.92	0.11	1.91	2.68	2.24	1.15	0.16	0.64
September	1.84	8.21	0.14	1.60	2.41	4.06	2.23	0.68	0.73
October	0.42	9.74	0.05	1.96	1.97	5.76	0.15	0.44	0.96
November	3.30	8.87	0.18	1.65	1.22	5.82	1.87	1.11	0.39
December	2.90	11.36	0.08	1.52	1.86	7.90	2.70	1.05	1.47
Totals for the year 1947...	29.01	115.61	1.52	19.55	26.49	68.07	22.90	10.55	11.04
Mean monthly deposit	2.64	10.51	0.14	1.78	2.41	6.19	2.08	0.96	1.00

YEAR 1947.
 Composition of solids collected in deposit gauge at Bristol Water Works building, Marsh Street, in tons per square mile.

Table 18

Month	Rainfall in inches	Total Solid matter (suspended and dissolved)	Insoluble solid matter			Total dissolved matter	Sulphate (as SO ₃)	Chlorine (Cl.)	Lime (CaO)
			Tar	Carbonace- ous matter other than tar	Mineral matter (ash)				
January	2.10	17.80	0.24	7.01	4.25	6.30	2.83	1.52	1.35
February	1.40	18.06	0.35	4.01	7.30	6.40	2.34	0.74	1.93
March	6.00	33.11	0.42	7.26	9.86	15.57	5.55	2.17	3.08
April	2.44	31.58	0.63	7.42	11.80	11.73	5.53	2.46	2.16
May	2.55	18.29	0.03	4.92	8.35	4.99	0.11	0.37	1.45
June	1.56	17.32	0.20	5.24	5.95	5.93	3.02	0.69	1.45
July	3.10	18.97	0.24	6.98	6.02	5.73	1.94	1.15	1.46
August	1.04	9.03	0.18	2.75	3.27	2.83	1.33	0.27	0.70
September	1.72	13.18	0.23	4.86	5.39	2.70	1.39	0.81	0.38
October	0.39	19.30	0.22	6.53	7.16	5.39	1.99	0.49	0.51
November	2.60	26.87	0.13	11.27	7.38	8.09	0.68	0.94	2.41
December	3.12	25.79	0.32	8.55	7.08	9.84	3.61	1.69	1.45
Totals for the year 1947...	28.02	249.30	3.19	76.80	83.81	85.50	30.32	13.30	18.33
Mean monthly deposit ..	2.33	20.77	0.26	6.40	6.98	7.12	2.53	1.11	1.53

YEAR 1947.
Composition of solids collected in deposit gauge at Shaftesbury Crusade, St. Philips, in tons per square mile.
Table 19

Month	Rainfall in inches	Total Solid matter (suspended and dissolved)	Insoluble solid matter			Total dissolved matter	Sulphate (as SO ₃)	(Cl.) Chlorine	Lime (CaO)
			Tar	Carbonace- ous matter other than tar	Mineral matter (ash)				
January	...				No figures available.				
February	...				No figures available.				
March	5.80	35.30	0.22	10.64	9.83	14.61	6.43	2.66	0.71
April	2.00	36.82	0.50	8.49	9.69	18.14	6.97	3.50	2.92
May	2.60	24.25	0.31	7.17	9.00	7.77	2.90	0.55	2.28
June	1.64	24.39	0.21	6.79	7.53	9.86	2.62	0.96	1.63
July	3.00	22.27	0.35	6.52	8.16	7.24	3.04	1.37	1.19
August	1.00	13.45	0.21	4.19	5.23	3.82	2.24	0.31	1.05
September	1.67	18.91	0.24	5.79	6.27	6.61	2.73	1.06	1.18
October	0.26	20.92	0.14	8.07	9.47	3.24	0.25	0.50	2.02
November	2.51	30.63	0.12	10.02	9.45	11.04	3.60	1.46	0.90
December	2.66	24.14	0.12	6.98	7.07	9.97	3.49	1.65	2.09
Totals for the year 1947	23.14	251.08	2.42	74.66	81.70	92.30	34.27	14.02	15.97
Mean monthly deposit	2.31	25.11	0.24	7.47	8.17	9.23	3.43	1.40	1.60

Estimation of Sulphur by Lead Peroxide Method.

Table 20.

Wt. of SO₃ mg./100 square cm. per day

Month				Zoological Gardens	Waterworks Marsh St.	Shaftesbury Crusade, St. Philip's	Blaise Castle, Henbury
January	...	...	...	1.05	2.53	2.13	0.80
February	...	...	...	2.24	2.42	2.67	0.15
March	...	...	...	1.34	2.20	2.70	0.80
April	...	...	...	0.66	1.66	2.70	—
May	...	...	...	0.62	1.25	1.80	0.54
June	...	...	...	0.38	1.02	1.75	0.35
July	...	...	...	0.20	0.83	1.29	0.07
August	...	...	...	0.34	0.86	0.91	0.28
September	...	...	...	0.44	1.20	1.81	0.53
October	...	...	...	0.87	1.73	2.00	0.67
November	...	...	...	0.77	2.18	2.56	0.75
December	...	...	...	0.91	3.14	3.13	0.79

TABLE 21.

Wt. of SO₃ mg./100 square cm. per day

Month		Campbell Farm	T Farm	Green Splot Farm	Moorhouse Farm	St. Andrew's Cold Store	Avonmouth Dock
July	...	0.29	0.17	0.37	0.71	1.76	
August	...	0.17	0.32	0.20	0.30	4.08	
September	...	0.49	0.50	0.47	0.44		
October	...	0.34	0.56	0.64	0.61	Site abandoned	
November	...	0.68	0.75	1.08	0.86		1.38
December	...	0.92	1.28	0.88	1.22		2.20

Appendix IV.

TREATMENT OF VENEREAL DISEASES

By Dr. A. E. W. MCLACHLAN, Director of the Bristol Services.

During the year 1947, the facilities offered by the Venereal Diseases Service have been fully utilised for the benefit of patients and for the protection of the community. Total new registrations and attendances have fallen: early syphilitic infections have decreased in both males and females; many conditions classed as "non-venereal" have assumed a greater importance, and further progress has been made in assessing the value of various forms of treatment.

In contrast with the year 1946, a relatively smaller number of members of H.M. Forces, returning to civil life, have reported to the clinics to continue treatment or observation, accounting for the decrease in new registrations (Table, p.135-136). The trend of the number of new infections is downward: all forms of syphilis, and notably the early infective stage, have shown a sharp decline, more noticeably in females. An equally noteworthy drop occurs in congenital syphilis, only one infection in the first year of life being recorded, due to the routine application of antenatal serological tests. In males, gonorrhoea has shown a slight increase, although in females the number of infections has lessened. This, in conjunction with the disproportionate fall of early syphilis in women, compared with men, suggests that a number of infections are being missed and are likely to augment the contagious reservoir of infection. In the case of seamen, a number of infections are admittedly acquired in foreign ports, but even after due allowance has been made for this factor, the proportion of female infections appears too low.

The high percentage of cases in the group classified as "non-venereal" (Table 1) is accounted for by the number found to be suffering from conditions directly attributable to sexual exposure; in males, non-specific urethritis and balanoposthitis account for over a third of the cases in the Maudlin Street clinic. In the group of cases "fearing infection" and desiring reassurance, it has been found that many patients have actually received treatment at other clinics or aboard ship. In the Avonmouth clinic this applied in over 50 per cent of the cases, while in the Maudlin St. clinic the figure approximated 30 per cent. The implications are obvious and add to the difficulties in disease control.

The therapy of early syphilis has crystallised into two forms of treatment, (1) a 23 day course of penicillin (10-15 million units in 15-20 days) supplemented by a 20 day intensive course of arsenoxide and bismuth, suitable for the needs of seamen, other itinerants, or those living far away from a clinic, in whom regular and complete treatment would otherwise be impossible and (2) a less intensive course of penicillin—neoarsphenamine-bismuth, used for routine out-patients and lasting 7-8 weeks.

These courses have been unaccompanied by any major intolerance, and have given remarkably good immediate results, in clearing up the clinical manifestations and in reversing the positive blood serology. The end results however cannot be fully evaluated until surveillance has been carried out for several years. The attempt is being made to secure the results of future serological tests by attaching address slips bearing the patients' identification numbers to their travellers' treatment books.

In the later stages of syphilis, the evaluation of penicillin continues more slowly. For certain forms, e.g., neuro-syphilis, hyperpyrexia by means of a fever cabinet is still the method of choice, and it is hoped to have this form of treatment available early in 1948.

In gonorrhoea, penicillin is now the main drug used. The oil-wax vehicles have gradually lost favour, and in this disease, as well as in syphilis, watery solutions have proved equally efficacious.

TABLE 1a
NON-VENEREAL CONDITIONS.
MALES

	Guardian House	Avonmouth	Southmead (Infants)
Non-specific urethritis	265	45	
Balano-posthitis and non-specific ulcerations	106	13	
Genital warts	59	19	
Herpes progenitalis	29	1	
Paraphimosis	7		
Reiter's Disease	5		
Skin infections	81	50	
Contacts to Syphilis	32		10
" " Gonorrhoea (did not develop infection)	9		
Fear of infection			
after exposure	279		
no admitted exposure	45	67	
Pre-marital examination	65	42	
Unspecified	9	15	
Total	991	252	10

TABLE 1b
NON-VENEREAL CONDITIONS
FEMALES

	Southmead Clinic	Guardian House
Trichomonatous Vaginitis		
Pregnant	34	13
Non-Pregnant	8	52
Non-Specific Vaginitis		
Pre-pubertal	2	—
Pregnant	16	3
Non-Pregnant	2	18
Erosion of Cervix		
Pregnant	7	—
Non-Pregnant	5	13
Genital warts	1	5
Herpes Progenitalis	—	1
Vaginal thrush	3	—
Bartholin Abscess	1	2
Salpingitis	—	1
Skin infections	—	10
Equivocal Serology	1	7
Ulcer Acutum Valvae	—	1
Contacts to Syphilis	15	40
" " Gonorrhoea	1	46
Fearing infection after exposure	30	40
Premarital tests	—	27
Unspecified	—	6
Totals	126	285

Special Diagnostic Clinic.

During 1947, 341 patients were referred to the clinic, operated jointly with the Maternity and Child Welfare Department with which a close liaison is maintained. The details are:—

No. of Medical Officers' Sessions	52
No. of New Registrations	341
Total attendances	1268
Total discharged (No evidence of specific or other infection)	280

Total transferred to treatment centre suffering from:—

Syphilis	{ New infections	7*
	{ Early	4
	{ Congenital	2
	{ Previously treated	5
Gonorrhoea		3*
(* one dual infection)		

Remaining under observation 31st Dec. 47 41

Eighteen positive (0.32%) reactions were obtained out of a total of 5651 serological tests carried out, routinely, at the various ante-natal clinics, leading to the detection of 13 previously unrecognised luetic infections (0.23%). Apart from these patients, a further 16 pregnant women were treated for syphilis during pregnancy and 7 for gonorrhoea. The end results, to date of the pregnancies were:—

PATIENTS					RESULTS		
Disease	S.D.C.	Clinic	Total	Child Healthy	Still Birth	Still Pregnant	Transferred Results not known
<i>Syphilis</i>							
Early	7	4	11	5	—	5	1
Late & Latent	4	9	13	8	1*	3	1
Congen.	2	—	2	2	—	—	—
Prev. Treated	5	3	8	5	—	3	—
Total	18	16	34	20	1	11	2
<i>Gonorrhoea</i>	3	7	10	6	1*	3	—

* most probably not due to maternal infection.

In the protection of the infant, penicillin appears to be even more potent than the earlier arsenical and bismuth treatment: however in the majority of cases a combination of both forms of treatment has been applied.

For some the necessity for facilities for intermediate treatment of vaginal discharges due e.g. to trichomonatous infestation, thrush, and other non-gonococcal infections has become more clamant. Self treatment of these conditions is often unsatisfactory and facilities for expert nurses' treatment were not available.

Since the 21st October treatment sessions at the Central Health Clinic have been carried out by specially trained Health visitors, 107 attendances by patients being recorded. This additional service is much appreciated by the patient.

The importance of the laboratory services cannot be too highly stressed if efficiency in the work of the clinics is to be maintained. It is a pleasure to acknowledge the close co-operation of the Preventive Medicine Laboratory in this field.

Welfare Work in the Clinic—Contact, Tracing and Regulation 33b.

(Statistics, p.137.)

Regulation 33B, which was introduced in 1943 to "bring under Medical control infected persons in the relatively small class unresponsive to educational and persuasive methods who were causing detriment to the war effort," ceased to operate 31st December 1947. This regulation applied only to those individuals who were reputed to be the source of two or more infections. At the same time encouragement was given to the Local Authorities to follow up, confidentially, those who were the subjects of a single notification. The results of the regulation, in the Bristol clinic area, in relation to the total volume of clinic work is shown.

TABLE 2

	1943		1944		1945		1946		1947	
	M	F	M	F	M	F	M	F	M	F
Total Registration	1215	542	894	558	1164	640	2253	609	1688	487
" Single notification	8	96	24	94	8	93	29	54	5	26
Insufficient particulars	2	54	4	30	1	40	6	10	—	5
Total effective single notifications	6	42	20	64	7	53	23	44	5	21
Cases located and contacted ...	6	42	*	64	7	53	**	44	5	21
Cases examined	6	42	17	53	7	50	22	42	5	20
Total multiple notifications ...	1	9	1	17	—	19	2	17	—	9
Insufficient particulars	—	2	—	1	—	1	—	1	—	—
Total effective multiple notifications	1	7	1	16	—	18	2	16	—	9
Cases located and contacted ...	1	7	1	16	—	18	2	16	—	9
Examined "voluntary"	1	4	1	4	—	9	1	7	—	5
" after service Form II	—	2	—	11	—	8	1	9	—	3
" after legal proceedings ...	—	***	—	1	—	1	—	—	—	1

* 3 patients refused to attend clinic—referred to own Drs.

** 1 patient refused to attend clinic—referred to own Dr.

*** Disappeared after legal proceedings but without examination.

In the application of 33B certain points of interest arise:— (1) The number of cases in which forms 1 have been sent on with insufficient particulars even to attempt location and identification of the suspected contact to infection.

(2) The amount of work involved in attempting to link up part names, descriptions, localities, etc. to secure identification.

(3) The extension of confidential follow-up first to those cases in which a single form was received, and later, more widely, as the welfare officers became known as approachable in cases of personal difficulty. The details of cases brought to the clinic by the application of Regulation 33B and other means are:—

TABLE 3

	1943		1944		1945		1946		1947	
	M	F	M	F	M	F	M	F	M	F
Total registrations	1215	542	894	558	1164	640	2253	609	1688	487
33B cases	7	48	18	69	7	68	24	58	5	29
Persuaded outside scope 33B	8	10	127	163	131	64	220	108	115	126
Persuaded by original patient	not recorded	not recorded			38	83	46	175	41	115
Attended of own accord	1200	484	749	326	988	425	1963	268	1527	217

From these figures it is apparent that this regulation had greater "side-effects" than direct effects in stimulating the follow-up by social workers of all possible contacts to infection, and thus aiding in disease-control.

Legal proceedings have been relatively infrequent but the fact that the regulation was in existence has provided a useful lever in the case of the refractory.

The value of "contact cards" as a means of inducing those exposed to, or, presumed sources of, infection to attend is shown in Table 4. In many cases, however, the original patients expressed reluctance to approach the consort and requested that the social worker undertook the duty. Map cards showing the location of the clinic and entrances have been of value in saving a patient from having to ask embarrassing questions.

During and after wars there is an undoubted increase in moral laxity and sexual promiscuity leading to a greater incidence in venereal and other infections. Contact-tracing is but one weapon—although an important one—in the attack. Public enlightenment on the medical and social aspects of these diseases demands at least equal prominence in V.D. control.

The number of patients transferred from the Services was—

	Army				R.A.F.		Total
Number of Release Forms received from period commencing 1.1.47 to 31.12.47				31		5	36
Number who reported on own initiative				4		-	4
Number followed up by Welfare Officer	27	Visit 27	Letter 2	5	Visit 5	Letter -	32
Refused to attend	3	3	1	-			3
Re-joined H.M. Forces	1	1		-			1
Attended Clinic	23	23		5	5		28

Of the 32 patients who attended 23 were under treatment or observation for early syphilis and 9 for gonorrhoea.

A handicap was found in not knowing the disease for which the patient had been under treatment: two of those approached refused to attend, claiming that they had not been under treatment for V.D. An indication, on the release form forwarded, of the original condition found would indicate those cases in which persistent follow-up and clinic attendance was necessary. The majority of the patients contacted did not appear to have had impressed upon them the importance of continuation of treatment or surveillance. Attendance at lectures on V.D. in the Services was regarded as a "routine parade," and little educational benefit was obtained by this group of patients.

PUBLICATIONS.

The following contributions to the literature were made from the clinic during 1947:

McLachlan—"Handbook of Venereal Diseases," 3rd Edition.

McLachlan and Brown—"The Effect of Penicillin Administration on Menstrual and other Sexual Cycle Functions." Brit. J. Venereal Diseases.

In addition, an attempt was made to solve the difficulties of the non-English speaking patient by the preparation by McLachlan, Brown and Deller of multi-language questionnaires. These have since been published and have proved of practical value in many seaport clinics.

TABLE 4
Regulation 33b.
Analysis of Diseases in Various Groups of Attenders.

	Diagnosis	1943		1944		1945		1946		1947	
		M	F	M	F	M	F	M	F	M	F
Single Form 1 Regulation 33B	Early Syphilis	1	17	6	22	4	15	7	11	2	6
	Chancroid	—	—	—	—	—	—	—	—	—	—
	Gonorrhoea	1	13	6	29	1	25	9	27	—	12
	N. V. D.	4	13	5	9	2	18	6	8	3	6
Multiple Form 1 Regulation 33B	Early Syphilis	—	3	—	7	—	6	—	9	—	3
	Chancroid	—	—	—	—	—	—	—	—	—	—
	Gonorrhoea	1	4	1	13	—	12	2	9	—	7
	N. V. D.	—	—	—	—	—	2	—	2	—	—
Persuaded outside scope of Reg. 33B	Early Syphilis	8		127		163		220		108	
	Chancroid										
	Gonorrhoea										
	N. V. D.										
Persuaded examination by original patient	Early Syphilis	No details of diagnosis kept.		8		7		14		27	
	Chancroid										
	Gonorrhoea										
	N. V. D.										
Legal proceedings non-examination Default	Syphilis	1 not diag.		—		1§		—		—	
	Gonorrhoea										
	Syphilis										
	Gonorrhoea										
Total		—	1	—	4	—	3	—	—	—	1

§ dual infection.

Appendix V.

REPORT OF PREVENTIVE MEDICINE LABORATORIES, 1947.

By Dr. K. E. COOPER and Dr. DOROTHY WOODMAN.

In last year's Annual Report the opportunity was taken of explaining the inter-connections between the various supply departments and the different examination sections within the Laboratory. An editorial article published in "The Medical Officer" November 29th 1947, p.229, commented favourably upon the system developed in Bristol and stated that "it gives the opening of what can readily be developed into a system which will meet all needs." The great advantages accruing from this centralised inter-weaving and control have been well exemplified during 1947. The work required by different authorities has fluctuated considerably during the year owing to the considerable re-organisation taking place in the medical services. Specialised sections of hospital work have been transferred from one hospital to another; staff changes have led to expansions and contractions in different units; public health work has been transferred from the local authority to the government and a considerable diminution in the number of examinations for venereal disease has been compensated for by increased routine investigations for the region. All these changes have been met owing to the ease with which technical and professional staff could be transferred from diminishing to expanding sections of the work. Such transfers would have been difficult, if not impossible, had the hospital laboratories, public health laboratories and the bio-chemical and pathological sections been independent units.

The total number of examinations on specimens done during the year was 106,379, an increase of 1,824 on the previous year. 99,352 examinations were for the City of Bristol (Statistics, p.124). The responsibility for public health bacteriology was, however, transferred to the Medical Research Council (acting for the Ministry of Health) from April 1st. 16,222 examinations come under this new heading, and the grant paid to the University Department for this work will lessen the financial burden which the city has borne for the work of the whole Department. Further relief will occur in July 1948 when the responsibility of payment for the laboratory work for the hospitals will be transferred to the Regional Hospital Board. The precise amount of the payments to be made by these and other authorities to the Department is being accurately estimated by a unit system calculated on the basis of the actual work done. All authorities will thus pay proportionately for the services rendered and the long history of close attachment to, and support of the department by the City Authorities can thus continue as in the past without any fear that the rates will have to bear any costs which do not rightly belong to them.

Venereal Diseases.

The influence of the new drugs, the return to peace time conditions and the careful laboratory control of treatment is at last having its effect in reducing the amount of venereal disease. Some 12,000 less examinations were made during the year. Some of this is due to the replacement of the relatively simple but somewhat inaccurate method of direct film examination for gonococci by more laborious cultural methods. The increased accuracy resulting, however, lessens the number of repeat examinations necessary and the number of doubtful cases which have to undergo continued observation and treatment. The cultural methods used in the laboratory have undergone further improvement as a result of research work. A new medium containing Thallium Acetate has been developed which suppresses the growth of many bacteria which normally interfere with the isolation and recognition of the gonococcus. The number of positive results obtained is much greater than with other methods and the results were published in the monthly bulletin of the Ministry of Health Vol. 6, November 1947, p.204, by Cooper and Linton.

Infectious Diseases.

Diphtheria. The number of examinations has been maintained at the previously achieved low level. 60 positive cases and carriers were found and the organisms typed. The percentage of the types for 1947 was as follows with the figures for 1946 in brackets. Gravis 16.7% (37%), Intermediate 45% (44%), Mitis 28.3% (16%) atypical 10% (3%). A satisfactory feature is a diminution in the percentage of gravis infections. If immunisation is maintained at a high level then the mortality from diphtheria should be negligible. 1947 is the first year on record without a diphtheria death in Bristol.

Enteric Fever.

No outbreaks of enteric fever have occurred during the year. It is probably wise to point out, however, that although the control of milk and water is reasonably satisfactory, there is an increase in consumption of possible vehicles of infection like ice cream and artificial cream which are not at present satisfactory. The new regulations for ice cream will be discussed below, but in our opinion steps ought to be taken on a national scale to deal with the manufacture of artificial cream. This was the vehicle which caused the epidemics of paratyphoid in 1940 and 1941. Some of the samples which we have examined during the year have shown bacteriological results which suggest that some of the firms preparing these products have returned to their previous unsatisfactory state.

Dysentery.

There has been a satisfactory reduction in the level of dysenteric infection below the previous high level. Much, however, remains to be done in tightening up the hygiene of food preparation, particularly for communal feeding. It is a short sighted policy to allow shortage of material for the cleansing of utensils and personnel to be used as an excuse for unclean methods. The avoidance of absenteeism due to dysenteric infections would compensate for the expenditure of labour on the manufacture of such articles for home consumption.

Food Poisoning.

Salmonella infections. All Salmonella organisms isolated in the laboratory during the year have been fully identified and typed by Dr. Joan Taylor in the Salmonella Reference Laboratory at Colindale. 12 cases of *S. typhi* *murium* have occurred during the year. These have all been isolated cases, and this type of infection has been associated for many years with rat and mice infestation. An outbreak of 11 cases of *S. enteritidis* *Jena* occurred in May. The organism was also isolated from a custard tart and the custard powder used to make the tart; though this type of infection is more usually associated with diseased meat. Two cases of *S. Dublin* in September were due to infection of milk in association with an outbreak of enteritis in cattle due to this organism. All milk from the infected farm was compulsorily pasteurised (it had previously been consumed raw) and no more cases occurred. Isolated cases due to *S. Oranienburg*, *S. Oregon*, *S. Senftenberg* and *S. Anatum* are due to types of Salmonella unknown in this country before 1940, and it has been proved that they were introduced into the country in dried eggs. One case due to a new type of Salmonella related to paratyphoid C unknown in this country before July 1947, was encountered. Isolated cases of this infection have occurred in Liverpool, Cambridge, Ipswich and London, and the source of the infection is as yet unknown. The value of full identification of salmonella organisms is thus well illustrated by the above examples. It often enables the laboratory to point to the possible sources of infection at an early date, and what are initially isolated cases are thus prevented from developing into epidemics.

A few minor outbreaks of bacterial toxic food poisoning have occurred. These have usually been due to reheated dishes or food which has been stored at unsuitable temperatures.

Other public health routine.

Tables of the official tests on waters and designated milks are given. They show that the main water supply from the Bristol, West Gloucester and Portishead Water Companies have maintained their high standard of purity throughout the year. The other supplies consisting largely of small wells are on the other hand not infrequently polluted. Special attention has been given to swimming baths, and wherever possible adequate systems of chlorination used and controlled. This was thought to be particularly necessary in view of the epidemic of poliomyelitis which was experienced by the whole country. Though Bristol suffered from this, its experience was on the whole less severe than in many other areas.

The extension of heat treated milk consumption in replacement of raw supplies is satisfactory, but the continued consumption of some raw milks, even when designated "Tuberculin Tested" or "Accredited" is fraught with danger. Danger from tuberculosis is of course confined to accredited and undesignated raw milks. The creation of more tuberculin tested herds (which are more profitable to the producer) is causing an increase in the number of infected animals in accredited herds. This is in spite of the fact that it is illegal knowingly to introduce an infected animal into an accredited herd. Proof of such knowledge becomes difficult if not impossible after the infected cow has been sold a few times.

Ice Cream.

On the 1st May of this year the Ice Cream Heat Treatment Regulations came into force. They cannot be fully operated until May 1948, as it is still an adequate defence against non-compliance with the Regulations if suitable apparatus for heat treatment has been ordered but not received. Although no bacteriological standards are laid down, the Ministry of Health have recommended a system of grading on the basis of a methylene blue test, and this is to be given an experimental trial. In 1939 we recorded in the Annual Report (not printed owing to the war) a system of grading on the basis of different tests (bacterial count and presence of bacterium coli). We have continued this system in the intervening years, and have therefore taken the opportunity during 1947 of comparing our Bristol grading with the new recommendations. The results are given in the following table:—

Ministry of Health Grades	Bristol report on Count and Coli.					
	Good	Satis.	Doubt.	Poor	V. Poor	
Grade 1	12	2	1	1	0	16
Grade 2	24	4	2	2	2	34
	42=26%			5=3%		50
Grade 3	14	6	5	13	3	41
Grade 4	2	6	1	18	42	69
	28=17½%			76=47½% fail both		
	52	18	9=6%	34	47	160
	70					

The Ministry recommends that they regard grades 1 and 2 satisfactory and grades 3 and 4 as having failed at present. It will be seen that in 73½% we have obtained agreement between the Ministry recommendations and the Bristol Grading. 26% have satisfied both grading, and 47½% have failed both gradings. 6% gave doubtful results on Bristol classification and only 3% failed the Bristol grading and satisfied the Ministry of Health. However, the methylene blue test failed in 17½% of ice creams which we graded as satisfactory, and we believe that these failures are not directly related to bacterial cleanliness. In some cases it was found that the ice cream contained chemical substances, sometimes reducing sugars which probably explained the ease of reduction of the methylene blue. The conditions of preparation of the ice cream were reported on by the Sanitary Inspectors Department in the case of these discrepancies but as nearly half of the 17½% had unsatisfactory conditions (mainly due to non arrival of parts of plant) the decision as to which system of grading was most accurate was inconclusive. Some of these ice creams were undoubtedly satisfactory despite failing of the methylene blue test.

Neglecting these discrepancies nearly half the ice cream failed all recommended tests. This is not satisfactory because some producers have no difficulty in preparing ice creams which are well above the highest standards used. There is no doubt that these ice creams which failed both systems of grading have been exposed to numerous chances of contamination avoided by the better manufacturers. They are thus more likely to become vehicles for the spread of infectious disease whenever carriers or cases are concerned in the processes of preparation. They cannot be regarded as other than dangerous products in our midst. That nearly half our producers offer such material for sale cannot be ignored if we hope to avoid epidemics of ice cream borne disease.

Hospital Bacteriology.

Greatly increased work in this section and in the clinical pathological section has more than compensated for all the decreases in work alluded to above. In particular the inclusion of specialised units, like Thoracic and Neurological Surgery, in Frenchay Hospital has increased the need for specialised bacteriological examinations. Painstaking investigations have been done on the changes in the bacterial flora of the respiratory tract after penicillin treatment. This has involved the examination of all the organisms present in sputa from patients in the Thoracic unit.

Clinical Pathology.

Southmead Hospital. Work is in progress on the new laboratory taken over from the Blood Transfusion Service. Once that is completed the work for the hospital should increase, and it will be easier to provide an efficient service. The total number of examinations carried out for the hospital was 19,028 of which 15,899 were examined in the hospital laboratory.

Ham Green Hospital. A technician has been working there every afternoon, and it is hoped that it will soon be possible to arrange for him to work there full time. 2,538 specimens were examined at the hospital laboratory during the year.

Frenchay Hospital. The Neurological Unit was transferred from the Burden Institute to this hospital in April. Most of the work for this unit, and the Thoracic Unit, came into Canynge Hall but 4,095 specimens were examined at the hospital. A technician goes out four days a week to do what work is possible on the spot. The laboratory is by no means fully equipped, and all the Bacteriology and some of the Bio-chemistry has to go to the main laboratory.

Clinics, Mortimer House, etc. Visits are still made to Mortimer House on request. The clinic work and patients are sent to Canynge Hall for examinations to be carried out there.

Bristol Maternity Hospital. A much larger amount of work is being sent to the laboratory in addition to the visits made to the Hospital. 856 specimens were examined during the year.

Teaching and Research.

All the classes mentioned in previous annual reports have been held this year, and the Department is now involved in a very full teaching programme. This is very necessary for the training of staff and technicians to keep up the supply of personnel with which to staff the Department. The routine service receives in return all the benefits of this close contact with the students.

Research work has been mentioned in connection with the various sections of the routine work, and has always been directed to the solution of problems which are of concern to the health of the community. The epidemiological section mentioned in last year's Annual Report has undertaken an extensive nutritional survey and the results are to be published in the Journal of Hygiene by Dr. Hobson. Further work on this subject is continuing.

Dr. Anna Mayr-Harting published a paper on the Growth of Bacterial Colonies and their Viable Population, in the Journal of Hygiene Vol.45, No. 1, p. 19.

Short Methylene Blue test after keeping.

	Pasteurised		Schools		Heat Treated	
	Pass	Fail	Pass	Fail	Pass	Fail
1st Quarter	39	1	51	0	35	0
2nd Quarter	42	12	29	6	45	1
3rd Quarter	65	5	31	6	51	3
4th Quarter	53	2	92	0	54	1
Total	199	20	203	12	185	5

Fail=9%

Fail=6%

Fail=2.6%

*Accredited Milks.**T. T. Milks.*

1947 Quarter. Long Methylene Blue Test. Long Methylene Blue Test.

	Satisfactory B.Coli in 1/100 ml.		Fail B.Coli in 1/100 ml.		Total	Satisfactory B.Coli in 1/100 ml.		Fail B.Coli in 1/100 ml.		Total
	Absent	Present	Absent	Present		Absent	Present	Absent	Present	
1st Quarter	41	0	2	2	45	30	1	0	0	31
2nd Quarter	31	0	11	4	46	27	1	4	4	36
3rd Quarter	44	5	2	22	73	45	12	14	30	101
4th Quarter	41	3	3	1	48	28	2	3	0	33
Total	157	8	18	29	212	130	16	21	34	201

Fail=26%

Fail=35%

Waters 1947.

	37°C Count			22°C Count			Presumptive Coli in 100 c.c. original water.				B.Coli faecal Type 1 Present	Totals.
	0-100	100— 1000	> 1000	0-200	200— 1000	> 1000	0	1-10	10-100	> 100		
City Mains, Bristol Waterworks Co.	119	1	0	120	0	0	117	3	0	0	0	120
Hospitals with West Glos. Supply	46	0	0	45	1	0	45	1	0	0	0	46
Hospitals with Portishead Supply	25	0	0	25	0	0	25	0	0	0	0	25
Somerset Other supplies	23	2	2	23	0	4	23	0	0	4	4	27
Gloucester Other supplies	12	1	4	9	3	5	4	5	6	2	4	17
Bristol Other supplies	0	1	1	0	0	2	0	0	2	0	2	2
Miscellaneous Ships, baths, etc.	6	19	12	8	14	15	11	4	8	14	18	37
	231	24	19	230	18	26	225	13	16	20		
	274			274			274				28	274

PREVENTIVE MEDICINE DEPARTMENT.**STAFF.**

R. H. PARRY, M.D., F.R.C.P., D.P.H.

Professor of Preventive Medicine

W. HOBSON, B.Sc., M.D., D.P.H.

Senior Lecturer in Preventive Medicine

R. C. WOFINDEN, M.D., B.Sc., D.P.H., D.P.A.

Lecturer in Public Health

Preventive Medicine Laboratories.

K. E. COOPER, B.Sc., Ph.D., M.R.C.S., L.R.C.P., A.R.I.C.

Reader in Bacteriology and Director of Laboratory

DOROTHY WOODMAN, M.Sc., M.D., B.S., M.R.C.S., L.R.C.P.

Lecturer in Clinical Pathology and Senior Pathological Officer

F. J. W. LEWIS, M.B., Ch.B.

Lecturer in Clinical Pathology and Pathologist to Southmead Hospital

ANNA MAYR-HARTING, M.D.

Assistant Lecturer in Bacteriology and Bacteriologist

ERICA L. SEYMOUR, M.Sc., Ph.D.

Assistant Lecturer in Bio-chemistry.

GWENDOLINE H. FAULKNER, D.Sc.

Recognised Teacher and Assistant Clinical Pathologist

A. H. LINTON, B.Sc.

Recognised Teacher and Assistant Bacteriologist

NADA PHILLIPS, B.Sc.

Recognised Teacher and Assistant Bacteriologist

MARY PHILLIPS, B.Sc.

Assistant Bacteriologist

Appendix VI.

METEOROLOGICAL OBSERVATIONS, 1947.

By Mr. H. H. HARDING, meteorologist, Frampton Cotterell, near Bristol.

Mean pressure at 9 a.m. G.M.T. (corrected)	...	...	29.944 inches.
Departure from average (32 years)	...	...	-0.009 inches.
Greatest pressure at 9 a.m.	...	...	30.654 ins. on Dec. 16th
Least pressure at 9 a.m.	...	...	28.747 ins. on Dec. 5th
Total rainfall at Bishopston (St. Andrew's Park)	...	...	29.36 inches.
Departure from average	...	...	-5.73 inches
Number of rainy days	...	...	176
Heaviest fall in 24 hours	...	...	0.84 ins. on August 3rd
Total rainfall at Frampton Cotterell	...	...	28.60 inches.
Departure from average	...	...	-2.92 inches.
Number of rainy days	...	...	187
Departure from average	...	...	+4
Days with 0.04 inches or more	...	...	131
Days with less than 0.04 inches	...	...	56
Heaviest fall in 24 hours	...	...	0.89 ins. on August 3rd
Mean humidity at 9 a.m.	...	...	83.6%
Mean temperature (maximum 8 mins.)	...	...	49.8 degrees.
Departure from average	...	...	+0.4 degrees.
Maximum temperature in shade	...	...	87.8 degress on Aug. 17th.
Minimum temperature in screen	...	...	2.5 degrees on Feb. 24th.
Extreme range	...	...	85.3 degrees.
Mean temperature of warmest day	...	...	73.9 degrees on Aug. 17th.
Mean temperature of coldest day	...	...	17.7 degrees on Jan. 29th.
Hours of bright sunshine	...	...	1,362
Departure from average	...	...	-177
Days of bright sunshine	...	...	148.
Days entirely overcast	...	...	86
Days with thunder	...	...	17
Days with fog	...	...	26
Days with snow	...	...	37
Number of frosty nights	...	...	68
Number of ground frosts	...	...	106

Appendix VII.

REPORT ON THE PREMATURE BABY UNIT, SOUTHMEAD HOSPITAL

*By Dr. BERYL D. CORNER and Dr. GRETA HARTLEY,
Paediatricians to Southmead Hospital.*

The work of this unit has progressed steadily during 1947. There has been considerable pressure on the available accommodation of 14 cots so that only the smallest and most feeble premature infants have been selected for admission—a fact to be considered in assessing the statistics for the department.

The total number of cases treated was 152, of whom six were considered to be non-viable abortions. In addition, eight babies weighing over $5\frac{1}{2}$ lb., in very poor condition at birth, were admitted for the special nursing care available. Fifteen babies born outside the Hospital were admitted, arrangements being made for one of the premature baby nurses to bring in the child in a special oxygen container.

There were 40 deaths of the viable premature infants, giving a mortality rate of 27.4%. Of special interest is the survival of five babies weighing less than 3 lb. at birth, one of whom weighed 1 lb. $12\frac{1}{2}$ oz., and another 1 lb. 15 oz. The most important cause of death is still birth trauma. Infection has been almost negligible and there have been no epidemics.

Efforts have been concentrated on reducing the morbidity which is so liable to arise in the few weeks following discharge of these infants from hospital. These include the following:—

- (1) Emphasis on breast-feeding, with arrangements for the collection of breast-milk, or the attendance of the mother at hospital, if she has been discharged before the infant is ready to start breast-feeding.
- (2) Retention of artificially fed infants in the unit until the weight of $5\frac{1}{2}$ to 6 lb. is reached.
- (3) Training the mothers in infant care so that babies are not discharged until the mothers show themselves competent in their complete care.
- (4) Follow-up of certain cases for some weeks after discharge. The value of this continued supervision seems undoubted for the avoidance of feeding and other problems until the infant is shown to be progressing normally in its own home.

In 1948 it is hoped to start a scheme in which all babies will receive domiciliary supervision for as long as they appear to need special care by the nursing and medical staff of the unit.

Tribute must be paid to the devotion and skill of the nursing staff who have often been working under great difficulties owing to staff shortage. It is considered that the facilities afforded by this unit for training in premature baby nursing should be much more widely used, and the scheme about to be started for refresher courses for Bristol district midwives is welcomed.

In addition to the specially selected cases nursed in the premature baby unit, there have been 169 other babies, weighing less than $5\frac{1}{2}$ lb. at birth, treated in the obstetrical department of Southmead Hospital. Of these, 10 were admitted from the district. As far as possible, the same routine of care and feeding was used as employed in the premature unit.

There were 17 deaths among these babies, giving a mortality rate of 10.7%. Therefore, the total mortality rate for the 315 viable premature infants treated in Southmead Hospital during the year is 18.0%.

STATISTICS FOR PREMATURE UNIT.

Total admission	...	...	...	152 (of which 6 were non-viable)
Discharged alive	...	...	...	108
Died	...	...	...	40 (plus 6 non-viable foetuses)
Remaining in unit on 31/12/47	...	...	...	10
Mortality rate of viable infants	...	...	...	27.4%
Admitted from district during the year	...	...	...	15 (of whom 6 died)
Admitted weighing over 5½lb. at birth	...	...	...	8

Mortality Rate According to Birthweight.

Weight (lb.)	Survived.	Died.	Total No.	Mortality Rate %
Under 2½	3	11	14	78.6
2½—3	2	9	11	81.9
3—3½	12	9	21	42.9
3½—4	29	4	33	12.1
4—5	51	10	61	16.4
5—5½	13	1	14	7.1

Causes of Death.

Atelectasis	...	...	...	9
Cerebral haemorrhage	...	...	...	9
Other types of cerebral birth trauma	...	...	...	12
Congenital abnormality	...	...	...	4
Prematurity and no other obvious cause	...	...	...	8 (including 6 non-viable)
Pneumonia	...	...	...	1
Gastroenteritis	...	...	...	2
Haemolytic disease of newborn (pulmonary haemorrhage)	...	...	...	1

Causes of Prematurity.

Unknown	...	...	...	...	65
Multiple pregnancy	...	...	...	...	22
Toxaemia	...	...	...	...	26
Ante-partum haemorrhage	...	...	...	...	16
Severe cardiac failure	...	...	...	...	1
Fibroids	...	...	...	...	1
Pyelitis	...	...	...	...	1
Induction or caesarean section for haemolytic disease	...	...	...	...	4

Feeding.

Discharged fully breast-fed	...	...	...	...	54 (50%)
Breast-fed plus complement	...	...	...	...	15

STATISTICS FOR PREMATURE INFANTS NURSED OUTSIDE THE UNIT.

Total number	...	...	...	...	...	169
Discharged alive	...	...	...	...	...	152
Died	...	...	...	...	...	17
Mortality rate	...	...	...	...	...	10.7%
Admitted from district	...	...	...	...	...	10

Mortality Rate According to Birthweight.

<i>Weight (lb.)</i>	<i>Survived</i>	<i>Died.</i>	<i>Total No.</i>	<i>Mortality Rate %</i>
Unrecorded ...	0	5	5	100
Under 2½ ...	0	0	0	—
2½—3 ...	0	2	2	100
3 — 3½ ...	0	0	0	—
3½—4 ...	0	1	1	100
4 — 5 ...	38	7	45	20
5 — 5½ ...	114	2	116	1.8

Causes of Death.

Atelectasis	...	...	...	...	5
Congenital abnormalities	...	...	...	...	4
Prematurity	...	...	...	...	5
Bronchopneumonia	...	...	...	...	2
Stomatitis	...	...	...	...	1

(Post-mortem was not performed on any of the patients certified as prematurity.

In all the other cases cause of death was confirmed by post-mortem.)

Causes of Prematurity.

Unknown	...	...	...	...	100
Toxaemia	...	...	...	...	19
Multiple Pregnancy	...	...	...	...	25
Induction or caesarean section for disproportion	...	...	...	...	10
Caesarean section for haemolytic disease	...	...	...	...	1
Ante-partum haemorrhage	...	...	...	...	8
Hypertension	...	...	...	...	3
Rheumatic heart disease	...	...	...	...	2
Pulmonary tuberculosis	...	...	...	...	1

Feeding.

Discharged fully breast-fed	...	...	...	...	106 (69.7%)
Breast-fed plus complement	...	...	...	...	28
Artificially fed	...	...	...	...	18

Appendix VIII.

THE WORK OF THE BRISTOL MASS RADIOGRAPHY UNIT.

REPORT FOR 1947

By Dr. E. E. MAWSON, Medical Director

During 1947 the Bristol mass radiography unit completed 35,687 examinations of persons living in Bristol and the adjoining counties of Gloucestershire, Wiltshire and Somerset. The surveys covered many types of industry, including light engineering, aircraft works, chemicals, coal mining, tobacco works, railway employees, oil-cake mills, cellulose film production, furniture and building trades. Other persons examined included schoolchildren, university students, mental hospital patients, housewives and employees in offices and shops.

Many of the firms have an annual mass radiography survey, and the number, within the limits set by the capacity of one unit, is steadily increasing. This is always encouraged, as the only way to detect early tuberculosis pulmonary lesions and new growths of the lung in the operable stage is by periodic examinations. Annual surveys, however, invariably reveal new cases, due to the constant changes in factory staffs, and it has been found necessary to repeat propaganda each year. There is, in fact, sufficient scope for an additional unit for this area, but owing to the supply position the Ministry have been unable to accede to a request for additional apparatus to be made available in this region.

The Bristol surveys included many such repeat examinations, but endeavour has also been made to bring the mass radiography service to the general public and in particular to housewives. Open sessions were arranged in June, and considerable propaganda carried out through the press, bus posters and public hoardings. As a result 2,500 persons attended for examination in one week, and an opportunity is now afforded every three months for members of the Bristol public to attend. The raising of the school leaving age last April accounts for a considerable decrease in the number of school leavers examined during the year. This is, of course, only a temporary decrease, and the examinations will be resumed in July of this year.

In addition to the Bristol surveys the unit has been able to break new ground in Gloucestershire which had not been visited previously. Surveys were arranged in three of the aircraft factories during May, and later, in September, a comprehensive survey was conducted at Lydbrook in the Forest of Dean. The Gloucestershire Joint Tuberculosis Board were anxious for the survey to cover the entire community. The examinations completed included employees of two mines, a cable works, school children and the general public, and revealed an incidence of active tuberculosis of 1.7% compared with 0.66% for the whole area covered by this unit. In Gloucestershire also it has been possible to assist the tuberculosis officer in taking films of previously detected cases of tuberculosis for whom arrangements for repeat x-ray examination would otherwise have been considerably delayed. These are classed as previously detected tuberculosis and do not affect the statistics.

In Wiltshire surveys were arranged in Swindon, Chippenham and Corsham, and for Somerset a survey at Bridgwater included 2,800 employees from many of the relatively small firms.

During 1948 it is hoped to extend the mass radiography service to Exeter and Torquay, which have not previously been visited by the unit. Up to date it has been difficult for small factories and institutions to be visited, as it has been an uneconomical proposition to do so when considerable time has to be spent in moving and setting up a dark room. Our scope, however, in this direction has been greatly assisted by the mobile van supplied by the Ministry of Health in October, 1947. It is built on a Dennis chassis, and when loaded with x-ray equipment weighs eight tons. It provides generation of current, a fitted and equipped dark room, and easy and safe transport of plant.

During the year a total of 1,204 cases revealed some abnormality, 513 being examined clinically. The remainder had written reports sent to them and, at their request, details were forwarded to their own doctors.

A statistical analysis of the surveys undertaken in 1947 is included in the following tables.

TABLE 1a.

Summary of Miniature Films and Cases recalled for Large Films.

Area	Miniature Films			Cases recalled for Large Films		
	Male	Female	Total	Male	Female	Total
Bristol ...	11,456	7,937	19,293	681 5.9%	345 4.3%	1,026 5.3%
Glo'shire ...	7,424	3,228	10,652	481 6.47%	143 4.42%	624 5.85%
Wiltshire ...	1,527	1,415	2,942	84 5.5%	49 3.4%	133 4.5%
Somerset ...	1,705	1,095	2,800	105 6.1%	43 3.0%	148 5.2%
Totals ...	22,012	13,675	35,687	1,351 6.13%	580 4.24%	1,931 5.41%

TABLE 1b.

Analysis of Cases recalled for Large Films.

Area	Normal Cases			Significant Cases			Did not attend for Large Film		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Bristol ...	347	186	533	322 2.9%	151 1.8%	473 2.4%	12 0.1%	8 0.1%	20 0.1%
Glo'shire ...	159	54	213	308 4.14%	88 2.72%	396 3.81%	14 0.1%	1 0.03%	15 0.1%
Wiltshire ...	45	27	72	37 2.4%	21 1.4%	58 1.9%	2 0.1%	1 0.07%	3 0.1%
Somerset ...	53	9	62	49 2.8%	34 3.1%	83 2.9%	3 0.2%	—	3 0.2%
Totals ...	604	276	880	716 3.25%	294 2.15%	1,010 2.82%	31 0.14%	10 0.07%	41 0.11%

TABLE 1C.

Analysis Miniature Films by Age Groups.

Area	MALE							FEMALE						
	Under 15	15/24	25/34	35/44	45/59	60 & over	Total	Under 15	15/24	25/34	35/44	45/59	60 & over	Total
Bristol ...	454	2,998	2,961	2,395	2,210	438	11,456	509	3,815	1,451	941	895	326	7,937
Glo'shire ...	323	1,310	2,089	2,016	1,466	220	7,424	291	1,450	855	376	232	24	3,228
Wiltshire ...	57	315	418	412	292	33	1,527	113	757	277	158	99	11	1,415
Somerset ...	21	361	508	426	331	58	1,705	22	600	224	153	87	9	1,095
Totals ...	855	4,984	5,976	5,249	4,299	649	22,012	935	6,622	2,807	1,628	1,313	370	13,675

TABLE II.

Analysis of 513 Clinical Investigations in 1947, exclusive of repeat examinations.

TUBERCULOSIS

NON-TUBERCULOUS CONDITIONS

	Quiescent	Observation at Dispensary	Sanatorium	Pleural effusion	Bronchiectasis	Acquired cardiac lesion	Congenital cardiac lesion	Post-pneumonic fibrosis	Lymphadenoma	Retro-sternal thyroid	Boeck's Sarcoidosis	Pneumoconiosis	Tumour of rib	Collapsed lobe	Foreign body in thorax	Referred to Thoracic Surgeon	Emphysema	Investigated and found normal	TOTAL
Bristol ...	56	65	26	6	15	11	1	7	1	3	1	6	1	2	2	7	2	4	216
Gloucestershire ...	57	58	18	5	6	5		5	1		1	31				8			195
Wiltshire ...	9	8	5	1	2	1		1		1		2							30
Somerset ...	6	43	15		2	3						1				2			72
TOTAL ...	128	174	64	12	25	20	1	13	2	4	2	40	1	2	2	17	2	4	513

The cases referred to the Thoracic Unit included 3 new growths of lung and one of œsophagus, one neurofibroma eroding rib, one adenoma of lung, one hiatus hernia, one diaphragmatic hernia, 2 cases of pulmonary aneurysm, a "spring-water cyst," a pleural cyst and several cases of bronchiectasis.

TABLE IIIa.

Incidence of Pulmonary Tuberculosis by Age Groups—Total of all Areas.

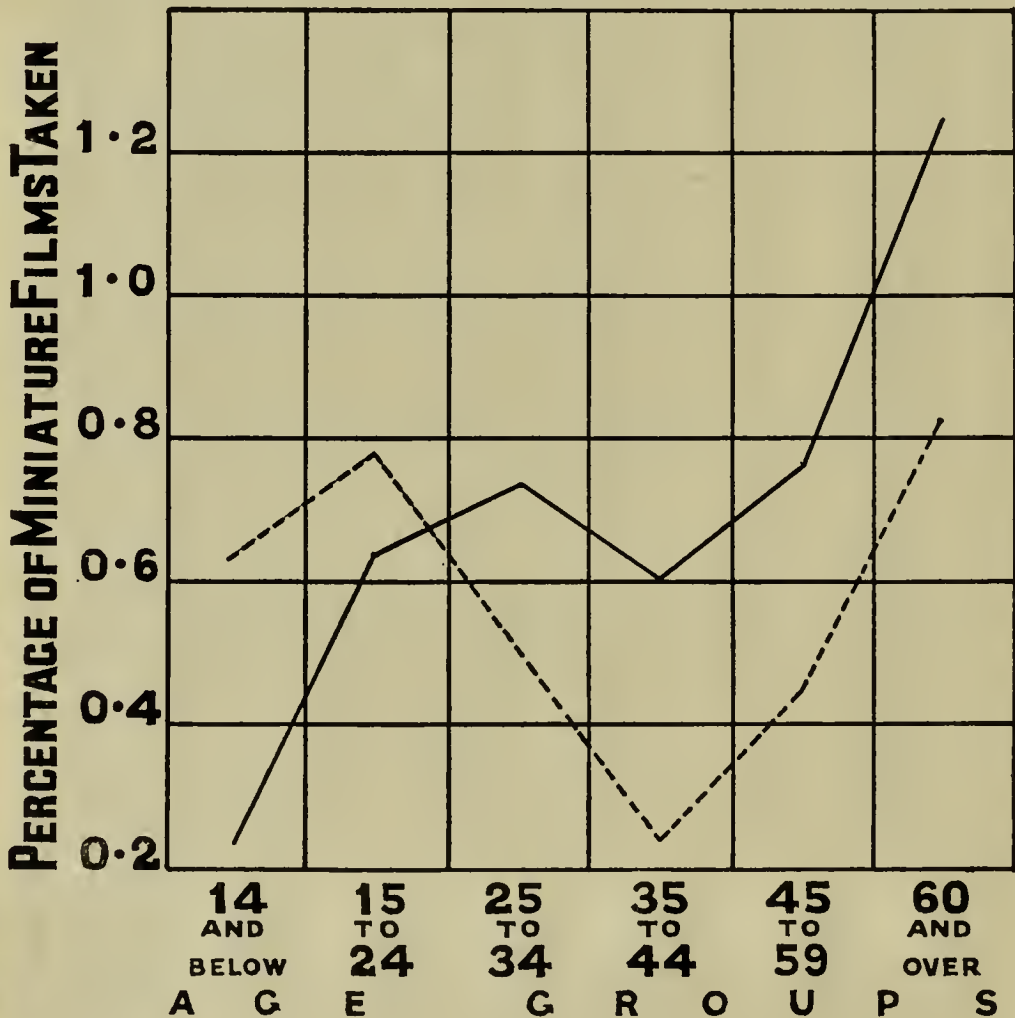
Type of Pulmonary Tuberculosis	MALE						FEMALE						TOTAL—M. and F.								
	Under 15	15/24	25/34	35/44	45/59	Over 60	TOTAL	Under 15	15/24	25/34	35/44	45/59	Over 60	TOTAL	Under 15	15/24	25/34	35/44	45/59	Over 60	TOTAL
ACTIVE—																					
(1) New cases ...	2	28	37	26	26	6	125 (0.56%)	6	51	13	3	4	2	79 (0.57%)	8	79	50	29	30	8	204 (0.54%)
(2) Previously detected	—	4	6	6	7	2	25	—	1	2	1	2	1	7	—	5	8	7	9	3	32
(3) Total ...	2	32	43	32	33	8	150	6	52	15	4	6	3	86	8	84	58	36	39	11	236
%	0.23	0.64	0.72	0.60	0.76	1.23	0.68%	0.64	0.78	0.53	0.24	0.45	0.81	0.62%	0.44	0.72	0.66	0.52	0.68	1.07	0.66%
INACTIVE—																					
(4) New cases ...	6	19	51	49	57	14	196 (0.89%)	4	21	36	15	18	3	97 (0.79%)	10	40	87	64	75	17	293 (0.79%)
(5) Previously detected	1	7	10	19	23	5	65	—	8	9	4	4	—	25	1	15	19	23	27	5	90
(6) Total ...	7	26	61	68	80	19	261 (1.17%)	4	29	45	19	22	3	122 (0.89%)	11	55	106	87	102	22	383 (1.07%)
TOTAL—																					
(7) All new cases ...	8	47	88	75	83	20	321 (1.45%)	10	72	49	18	22	5	176 (1.28%)	18	119	137	93	105	25	497 (1.39%)
(8) All previously detected	1	11	16	25	30	7	90 (0.48%)	—	9	11	5	6	1	32 (0.23%)	1	20	27	30	36	8	122 (0.34%)
(9) All cases ...	9	58	104	100	113	27	411	10	81	60	23	28	6	208	19	139	164	123	141	33	619
%	1.05	1.16	1.74	1.90	2.62	4.16	1.86%	1.06	1.22	2.13	1.41	2.13	1.62	1.52%	1.06	1.17	1.87	1.78	2.51	3.21	1.73%

Percentages refer to Miniature Films taken—shown Table 1c.

INCIDENCE OF PULMONARY TUBERCULOSIS (ACTIVE)

TABLE III B

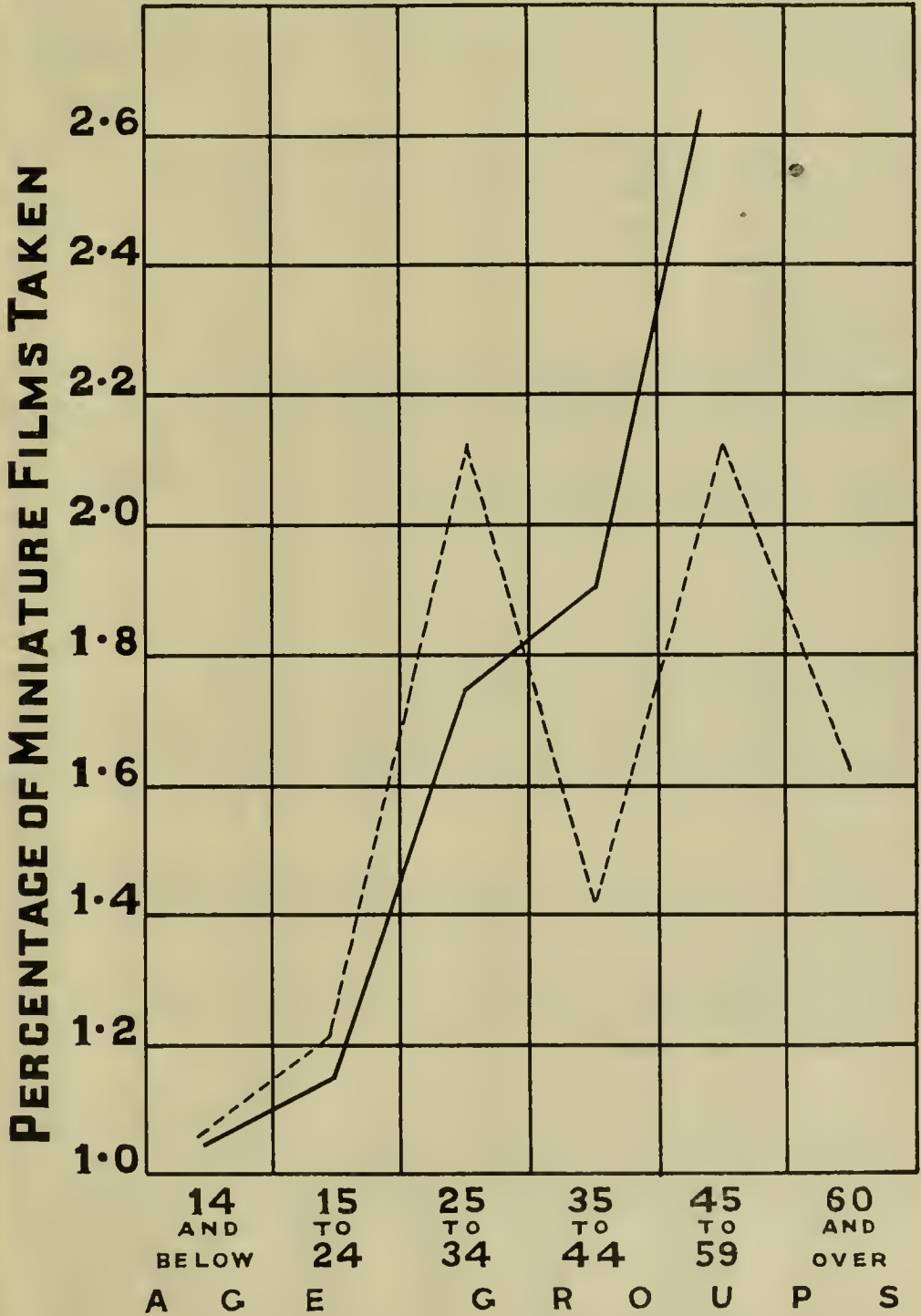
MEN SHOWN THUS —————
WOMEN " " - - - - -



INCIDENCE OF PULMONARY TUBERCULOSIS (ALL TYPES)

TABLE III C

MEN SHOWN THUS —————
WOMEN " " - - - - -



Appendix IX.

POLIOMYELITIS IN BRISTOL, 1947

A report by Dr. R. C. Wofinden, Deputy Medical Officer of Health of Bristol prepared after consultation with the Public Health Medical Officers, Health Visitors and Sanitary Inspectors forming the public health team.

Experience in England and Wales.*

During the year under review the country recorded the most severe epidemic of poliomyelitis in its history. The total number of notifications for England and Wales (poliomyelitis and polioencephalitis) was 7,800 giving a notification rate of 18 per 100,000 living. The highest rate previously recorded was in 1938 when it was 4 per 100,000.

The disease was widespread throughout the country and began in a number of widely separated areas about the same time. The West Riding of Yorkshire, North West Lancashire, South London and Birmingham were the earliest foci.

The South West of England was not heavily involved and the general notification rate in this part of the country was 10-20 per 100,000 compared with some areas such as the Isle of Wight, Radnorshire and Westmorland where the notification rate was over 40 per 100,000.

Bristol Experience.

In Bristol, throughout the whole of the year, 93 notifications were received and, of these, 31 were confirmed cases giving a "corrected" notification rate of just over 7 per 100,000. Previously high figures in Bristol were recorded in 1938 (24 cases) and in 1921 (25 cases). While the incidence of poliomyelitis in Bristol was higher than usual in 1947, the number of recorded cases scarcely reached epidemic proportions. There was one recorded death from poliomyelitis but this was in respect of an old case and was not attributable to a recent infection.

Table I gives the relevant statistical information for poliomyelitis in Bristol during the past ten years.

These figures take no account of "missed" or "abortive" cases although it is well known that during "epidemic" times such cases are probably more prevalent than those which progress to a true paralysis.

The epidemic for England and Wales began earlier than usual, i.e. in the second quarter of the year, was at its height in August, and the curve was still high at the end of the year. In Bristol there was only one recorded case during the second quarter of the year, the maximum number of cases was recorded in the third quarter and the incidence remained higher than usual until the first week of November.

Time Incidence.

Figure A shows graphically the weekly notifications and confirmed cases of poliomyelitis in Bristol during 1947. The fact that only one third of the notified cases were subsequently confirmed as true cases of poliomyelitis is evidence of the general practitioners' anxiety not to miss an actual case.

Age and Sex Distribution.

Table II gives the age and sex grouping of notifications and confirmed cases of poliomyelitis in Bristol during 1947.

For the whole year, males were attacked twice as frequently as females (21:10) and the highest number of cases occurred in the under 5 years group. This is not in keeping with the experience of the country as a whole where most cases occurred in the 5-14 years age group and the sex ratio of cases was males 55: females 45.

Sixty two of the notified cases were subsequently diagnosed as suffering from a condition other than poliomyelitis. The diagnosis in these cases was as follows:—

Tonsillitis	...	...	...	...	14
Pneumonia	...	...	...	...	7
Meningitis (various)	...	...	...	...	6
Rheumatism (various)	...	...	...	...	6
Miscellaneous	...	...	...	...	29

Geographical Distribution.

The cases were fairly widespread throughout the City and a spot map revealed no significant findings.

From 21st July to the end of the year, i.e. during the period of increased prevalence, there were 26 cases (20 males and 6 females). These cases were distributed on both sides of the river, 8 to the South and 18 to the North and with no significant time relationship. Seventeen of the cases were distributed in an area within one mile of either side of the river. Had all these cases occurred late in the year it might have been interpreted as evidence in favour of a faecal spread of infection by flies for all the sewage of Bristol is discharged into the River Avon and presumably by the end of September the sewage, in spite of chlorination, must have been infected with poliomyelitis virus. However, such was not the case and some of the earlier cases occurred within this area.

Seventeen of the 26 cases also occurred within a two mile radius of the centre of the City although no special significance can be attached to this.

The distribution of cases bore no particular relationship to the railway system within the city boundary.

Investigations.

All the notified cases were visited and complete enquiries made regarding milk, food and water supplies, possible contacts and visits to swimming baths. Notes were also made of the degree of fly infestation in the homes visited. Most of the confirmed cases had either visited other areas where poliomyelitis was prevalent or had received visitors from such areas but in view of the widespread nature of the epidemic, and the fact that it was at its height during the holiday period, this was to be expected.

No significant facts emerged from these enquiries; a few of the cases had visited swimming baths within two or three weeks of developing symptoms, but most had not. At the time of developing the disease all cases were using water from the Bristol Waterworks company but this was not suspect in any way. Within the limits of the possible incubation period many of the cases had used water supplies in other parts of the country. There was no milk supply common to all the cases.

One case was reported from Clifton College in January but no further cases developed amongst the contacts. The case occurred at a time when 150 of the boys were suffering from Influenza which would have masked any possible abortive cases. There was a further case at the College at the end of September. The house in which this case occurred was dispersed and no further cases, either abortive or frank, occurred.

In only one case (not included in the above report) were significant findings elicited. This was in respect of a school teacher aged 26 who was living just outside the City Boundary.

On the 9th of September she complained of pains in the lumbar region and of a stiff neck. She was admitted to Ham Green Isolation hospital on the 11th and subsequently developed paralysis of both arms and legs and of the respiratory mechanism. She died on 1st October. This patient had been in contact with a man between 24-31st August in Scotland who later developed poliomyelitis and died on 11th September. Another woman who had been in contact with the school teacher between 1-5th September developed symptoms which seemed to indicate that she was an abortive case of poliomyelitis.

Administrative Action.

Early in August a memorandum was circulated to general practitioners giving information on the clinical appearance of acute poliomyelitis and the known facts of its epidemiology. From time to time further memoranda were circulated keeping doctors informed of the locality of individual cases and the symptoms and signs they were presenting. From August to November tonsillectomies were restricted to urgent cases; there was no restriction on dental operations.

Hospital accommodation and orthopaedic facilities were adequate to deal with the number of cases occurring.

The epidemic aroused national interest and it was neither possible nor desirable, to avoid making public statements from time to time.

Press announcements were made giving general advice along the following lines:

- (a) The avoidance of crowded assemblies such as cinemas, theatres, etc.
- (b) The avoidance of unnecessary travel.
- (c) Taking energetic steps to suppress flies and prevent contamination of milk or food.
- (d) The avoidance of swimming and bathing in lakes, streams and canals.
- (e) Strict attention to personal hygiene.

In view of our limited knowledge of the method of infection and spread of this disease and also of the relatively small increased incidence in Bristol, it was not considered necessary to advise the closure of schools, day nurseries, or swimming baths which were adequately chlorinated.

The houses and bedding of infected cases were disinfected after removal of cases to hospital. Children of school age who had been in contact with a case were excluded from school for three weeks and kept under close medical supervision.

*References: —Poliomyelitis in England and Wales in 1947. A. H. Gale, D.M. Monthly Bulletin of the Ministry of Health, June 1948.

TABLE 1

Year	CASES						REMOVED TO HOSPITAL		CASES IN EACH QUARTER				DEATHS					Attack Rate per 100,000 population
	At all Ages	At ages-years					No.	%	1st	2nd	3rd	4th	At All Ages	At ages-years				
		Under 1	1-4	5-14	15-24	25+								1-4	5-14	15-24	25+	
1947	31	—	15	4	6	26	83.9	1	1	17	12	1	—	—	—	—	1	7.2
1946	7	—	1	3	1	6	85.7	2	2	3	—	1	—	—	1	—	—	1.6
1945	5	—	2	2	1	1	20.0	—	—	1	4	—	—	—	—	—	—	1.0
1944	1	—	1	—	—	1	100.0	—	—	1	—	—	2	—	—	1	1	0.2
1943	1	—	—	1	—	—	—	—	—	1	—	—	1	—	—	—	—	0.3
1942	7	—	2	2	1	5	71.4	1	—	5	1	—	—	—	—	—	—	1.9
1941	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1	—	—
1940	10	1	3	1	1	7	70	—	—	2	8	3	—	—	3	—	—	2.4
1939	8	—	1	7	—	5	63	4	1	2	1	2	—	—	—	—	2	1.9
1938	24	1	13	5	4	20	83	2	—	2	20	2	—	1	—	—	—	6.0

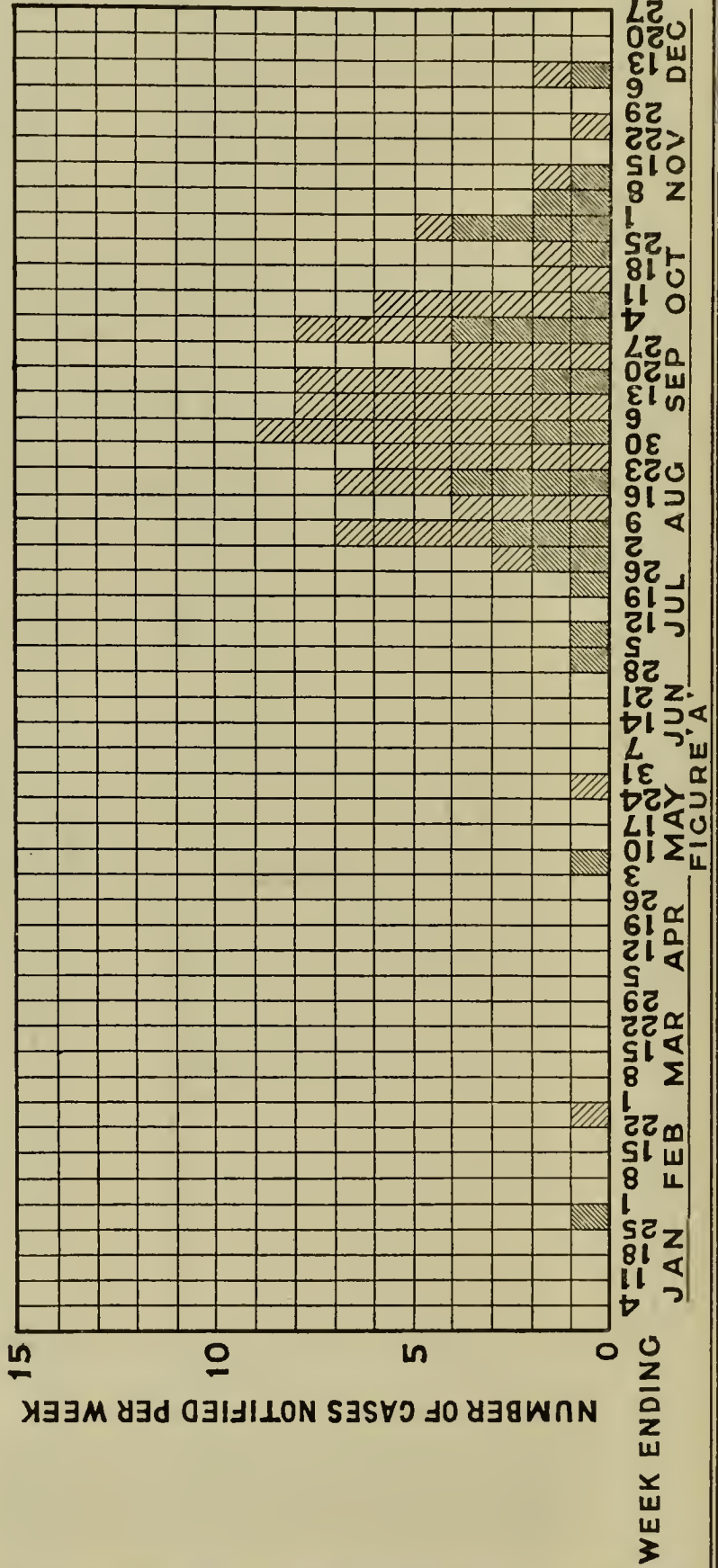
TABLE 2

•	Under 5 years						5-14 years						15-24 years						25+ years						All ages											
	Total Notified			Confirmed			Not Confirmed			Total Notified			Confirmed			Not Confirmed			Total Notified			Confirmed			Not Confirmed			Total Notified			Confirmed			Not Confirmed		
	M	F		M	F		M	F		M	F		M	F		M	F		M	F		M	F		M	F		M	F		M	F				
	21	10		9	6		12	4		19	11		3	1		16	10		14	4		6	0		8	4		6	8		3	3		5		
	31			15			16			30			4			26			18			6			12			14			6		8			

CITY OF BRISTOL POLIOMYELITIS-1947

SHOWING WEEKLY NOTIFICATIONS
AND CONFIRMED CASES.

NOTIFICATIONS. =
CONFIRMED CASES. =



Appendix X.

ASPECTS OF MENINGITIS IN 1947

By Dr. James Macrae, Deputy Medical Superintendent, Ham Green Hospital.

Those who have observed cases of meningitis during the past fifteen years have witnessed miracles in the results of treatment in the several forms of the disease. Prognosis is no longer a matter of sombre conjecture, and morbid complications no longer pursue the surviving patients. Each year thousands of useful lives are restored to the community. It is pleasant to demonstrate this trend with cases treated in Ham Green Hospital during 1947, and to amplify the conclusions set out by Peters in 1940. (1).

Meningitis was known to Hippocrates (2) and the disease has traditionally been one of ill omen. In 1912 the epidemic variety was made notifiable in this country (3) and, very gradually, cases of meningitis have tended to gravitate to fever hospitals.

Statistically, records of the disease are not helpful in detail and there have been years when more deaths were registered due to cerebro-spinal fever than cases notified (4). However, epidemic prevalence did exist in 1915, 1931 and 1940. Generally the 1915 attack was deemed the most severe although four times as many cases occurred in 1940 (5). Yearly notifications in England and Wales still number about 2,000 having dropped from 12,771 in 1940 (6).

In Bristol, a serious epidemic has not been recorded; in 1915 there were 46 cases (7), in 1931 19 (8), and in 1940 80 (9). During the years 1944-1946 there have been 17, 13 and 28 cases respectively (10).

Prior to 1936, the only available specific treatment for meningitis was an anti-serum applicable to certain strains of meningococcal infection. Otherwise the condition was considered in terms of an abscess and drained as frequently and thoroughly as possible by lumbar puncture. At that time untreated meningococcal meningitis had a death rate of 61.8% (11), and, even when well dosed with serum, patients still died at a rate of 36.6 in every 100 (12). Other forms of meningitis had fractional percentage survival rates and are barely mentioned statistically (13). In addition to an appalling mortality, meningitis had a formidable morbidity rate. In 1914, Bristol had 32 cases of cerebro-spinal fever with 21 deaths: of the 11 survivors only 4 were considered normal a year later (14).

After years of doubtful recommendation for early and adequate serum therapy, the Chief Medical Officer of the Ministry of Health first mentioned, in 1936, the possibility of a new treatment. (15). The Medical Research Council organised a controlled clinical trial of sulphanilamide in 1937 (16), and the results recorded by Banks in 1938 (17) have been improved on during the war years with the help of newer sulphonamides, penicillin and streptomycin. It is now estimated that the over-all death rate of cerebro spinal meningitis is 9.2% (18)—a triumph for chemo-therapy. This is not all, for the new therapeutics apply also to the formerly hopeless varieties of meningitis—pneumococcal, streptococcal, staphylococcal tuberculous, coliform, etc. and these diseases, mortal a few years ago, now yield up a very reasonable proportion of normal survivors.

The intention of the following survey is to study briefly the 1947 picture of meningitis in the forms met with in Ham Green Hospital, and comment on the recent advances in treatment.

Sixty-five cases were diagnosed, of whom two still remain in hospital in a convalescent condition. The following table breaks down this total to show the variety of infection and the broad results of treatment.

Type	Total	Recovered	Died	Severity			Male	Female	Age distribution					Residual complications
				Mild	Moderate	Severe			—5	—10	—20	—30	30+	
Meningo-coccal	28	28	—	10	15	3	21	7	12	4	5	5	2	Nil
Tuberculous	17	1	16	—	—	17	7	10	9	1	4	1	2	Nil
Pneumo-coccal	6	5	1	—	—	6	2	4	2	3	—	1	—	(a) Blind in one eye (b) Moderate hydrocephalus
Chorio-meningitis	5	5	—	5	—	—	5	—	—	1	3	—	1	Nil
Hæmophilus Influenzæ	4	2	2	—	1	3	3	1	4	—	—	—	—	Nil
Bacillus Coli	2	1	1	—	—	2	2	—	2	—	—	—	—	(a) Gross hydrocephalus
Staphylo-coccal	1	—	1	—	—	1	1	—	—	—	—	—	1	Nil
Strepto-coccal	1	1	—	—	—	1	1	—	—	—	—	—	1	Nil
Unknown	1	1	—	—	—	1	1	—	—	—	1	—	—	Nil
Totals	65	44	21	15	16	34	43	22	29	9	13	7	7	

The mortality of 32.9% is largely accounted for by the death of 16 tubercular patients. If this weighty figure be removed, the death rate of the remainder is 10.4% and, even if it is retained, the mortality rate is lower than that recorded among serum treated cases of meningococcal meningitis of the pre-sulphonamide day —(36.6%) (19).

Diagnosis.

Clinically it is impossible to diagnose positively one type of meningitis from another. The diagnosis is made or confirmed by examination of the cerebro-spinal fluid. This takes time, at best one hour and at worst several days.

The laboratory work involved is not complicated and accuracy can be attained in a very short time. Resident medical officers handling cases of meningitis should be competent in these routine examinations.

All cases of tuberculous meningitis during the year were confirmed positively by finding the causal organism in the cerebro-spinal fluid. This observation connotes a great deal of patient work searching films for small numbers of organisms. Microscopic search varied in time from 5 minutes to $3\frac{1}{4}$ hours, but the results compensated for the labour. This matter of truly identifying tuberculous meningitis has become more important since the advent of streptomycin therapy, as it is very material that we do not condemn non-tuberculous patients to the rigors of streptomycin treatment or include such cases among therapeutic cures. If the organism is not recovered, a diagnosis of tuberculous meningitis will always be reasonably doubtful.

In dealing with meningococcal infections the majority of the cases were confirmed readily in the laboratory, but a few produced very scanty numbers of organisms necessitating long search for typical appearances; these organisms did not grow well in culture. All such cases had had some sulphonamide before admission. The sensitivity of meningococci to sulphonamide is such that, unless the organism is isolated from the admission specimen of fluid, the chance of recovering it after full therapy is commenced is very poor. The other organisms presented little difficulty in isolation being typically numerous in films and culture. The polymorphism (20) of the *hæmophilus influenzae* in cerebro-spinal fluid was confirmed in this series and is worthy of note.

Treatment.

(a) General: On admission, lumbar or cisternal puncture was performed on all cases suspect of meningitis. If the fluid appeared to be abnormal in any way, the patient was provisionally considered to be suffering from a septic meningitis and received 10-20,000 units of crystalline penicillin, intrathecally, at once, and was given sulphonamide, orally or parenterally. The laboratory identification being made, further treatment was adjusted to suit the case. Throughout treatment frequent leucocyte counts and urine examinations were performed in order to detect toxic sulphonamide complications.

(b) Meningococcal Cases: Recognizing the sensitivity of the organism to sulphonamide, no extra penicillin was employed. Sulphathiazole was used in the standard doses recommended for severe infections. (Medical Research Council) (21). Twenty eight cases were treated and discharged apparently completely cured. The average duration of stay in hospital was 20 days.

(c) Tuberculosis Cases: This hospital has always handled a large proportion of the cases occurring in Bristol; in the past, this work was onerous and hopeless, but this year we have had one brilliant recovery as a result of streptomycin therapy. Three cases were given streptomycin but two were so badly involved on admission as to offer no possible chance of recovery. In November 1947 the supply of anti-biotic was discontinued and it has not been possible to treat any further cases.

The Recovered Case.

A little girl of 5 years, admitted 31st August 1947, in the third day of disease, was found to have tubercle bacilli in the cerebro spinal fluid. Streptomycin therapy was commenced on 8th September, 1947. For a fortnight the disease seemed slowly progressive, for several weeks it seemed static, and then recovery became evident and has gradually become so complete that in January 1948 the patient seems perfectly well, both mentally and physically. Her cerebro spinal fluid now exhibits a slight pleocytosis (20-25 per ccm), and is otherwise normal. Throughout the illness the fluid contained tubercle bacilli up to the 7th week and has been sterile since then. The organism has been successfully cultured. The patient's physical and mental improvement always outstripped the laboratory findings to such an extent that the fluid did not constitute a good guide to recovery.

Treatment consisted of daily intrathecal injections of 40 mgms of streptomycin combined with 1,000 mgms of the drug, divided into six doses, intramuscularly, every twenty-four hours. After a month, the intrathecal dose was reduced to 20 mgms daily. This regime was continued for ten weeks, then the treatment was wholly discontinued for two weeks and thereafter the daily intramuscular therapy was restarted for three weeks. Since 15th December 1947 the patient has received no specific treatment. She walks well, and her erythrocyte sedimentation rate is 5 mm for one hour.

This little girl has had 73 lumbar punctures and 546 intramuscular injections—a treatment procedure which demands fortitude from the patient and good technique, asepsis and patience from the therapist.

Fourteen untreated cases died within three weeks of admission. One of these was the small son of a sanatorium patient who insisted on visiting his family while frankly sputum positive for tubercle bacillus. Another was the sixteen year old son of an apparently healthy sanatorium orderly.

(d) Pneumococcal Cases: In this disease penicillin has changed a total mortality to a reasonable chance of recovery. During 1947 we treated six cases with one death. All the patients were severely ill and three of them had a primary otitic focus of infection.

Treatment consisted of daily intrathecal penicillin (15-20,000 units) until the cerebro spinal fluid became relatively normal. This required a period of 8-14 days. In accordance with recent work by Honor V. Smith and her colleagues in Oxford, (22), this therapy was reinforced with full doses of sulphathiazole and parenteral penicillin. Three cases recurred after such treatment: one of them settled down after a mastoidectomy, and a second course; one settled after a second course including intraventricular penicillin, and the last went on to convalescence after intracisternal penicillin. All these cases developed temporary cerebrospinal fluid blocks, due possibly to the liability for pneumococcal pus to be sticky and form small clots. The fatal case recurred thrice, becoming blocked each time. The fluid was rendered free of pneumococci twice but the third time a penicillin resistant type of organism was recovered and, despite ventricular drainage, the child died after twenty-one days of treatment. At post mortem, a small quantity of pus was found in the right mastoid, infected with penicillin insensitive pneumococci and presumably constituting the primary focus of the disease. Clinically this mastoiditis had not been evident. It was interesting to recover penicillin resistant staphylococcus aureus from washings of the maxillary and sphenoidal sinuses. Pneumococcal meningitis is not easy to treat since each case is a very separate entity—the possible presence of a primary focus should never be forgotten; therapy should be pushed hard all the time and there should be no hesitation in using the cisternal and ventricular approaches to the cerebro-spinal system.

(e) Haemophilus influenzae Cases: Therapy anomalies which tend to be associated with *H. influenzae* infections were demonstrable in the present series. One case recovered rapidly with sulphathiazole alone; another died despite penicillin, sulphathiazole and streptomycin, and, throughout, produced an organism insensitive to streptomycin and penicillin. A third case died very rapidly after only three days' treatment with penicillin and sulphathiazole. The fourth case ran an interesting course in that a primary penicillin sensitive organism recurred as insensitive, and then yielded successfully to streptomycin combined with *H. influenzae*, Type b, rabbit antiserum. (23). Sulphonamide did not seem to influence this case.

(f) Chorio-meningitis Cases: Although R. Sohier and Y. Gaubert (24) report experimental transmission of this disease and so place the infective nature more securely, the diagnosis is still doubtful in isolated cases. The clinician must always wonder if these cases are not abortive types of poliomyelitis or mild cases of encephalitis. The five cases in this series were all benign and lymphocytic in nature, and no other diagnosis seemed admissible. No special treatment was given to any of the patients.

(g) *Bacillus coli* Cases: Two patients were admitted, both infants under six months old. One case survived only two hours in hospital. At post mortem pus containing *B. coli* was found under the right side of the cribriform plate. There was a history of a recent fall on the right temple, which might have had an influence on the spread of infection from the nose to the meninges. The other case had had a lumbo-sacral meningioma removed by operation and developed meningitis a week later. Intraventricular streptomycin in daily doses of 40 mgms sterilized the cerebro spinal fluid in five days. However, although the infection did not recur, the child developed a unilateral internal hydrocephalus which might have been a complication of the meningitis or another congenital defect. This baby was alive three months later but the hydrocephalus had become worse. The case certainly demonstrated the ability of streptomycin to deal with the *B. coli* but, apart from that, the result was an unsatisfactory success.

(h) The other cases suffered from:

(a) *Staphylococcus aureus* meningitis, originating in osteomyelitis of the body of the 7th cervical vertebra, which ran a rapidly fatal course.

(b) Streptococcal meningitis which went on to form a brain abscess. The organism was an anaerobic streptococcus and was sensitive to penicillin. Drainage of the abscess, combined with penicillin and sulphonamide therapeutics, restored the patient to normal health.

(c) Meningitis of unknown etiology in a boy 12 years old, before admission this patient had had some penicillin and sulphonamide. In addition to meningitis, he suffered from frank mastoiditis which was treated surgically. The meningitis settled down rapidly but no organism was ever recovered from the cerebro spinal fluid or the mastoid cavity.

Conclusion.

Sixty-five cases of several types of meningitis were treated and, of those, forty-eight are still alive; three suffer from residual damage. Had these cases been treated in 1935 it is reasonable to suppose that forty or more would have died. Even in this small series, modern therapy has, therefore, given life to some twenty persons. Next year, the recovery rate may well be higher if streptomycin fulfils its promise and is more plentifully available. The relatively common appearance of types of organisms insensitive to antibiotics is disquieting.

My sincere thanks are due to Dr. Peters, Medical Superintendent of this Hospital, for permission to publish these notes.

References.

- (1) B. A. Peters. The Bristol Medico-Chirurgical Journal, Summer 1940.
- (2) D. Guthrie. A History of Medicine, 1945.
- (3) Order of Local Government Board dated 15 Aug. 1912.
- (4) On the State of the Public Health (H.M.S.O.), 1936.
- (5) Ibid. 1946.
- (6) Ibid.
- (7) City & County of Bristol Annual Report of Medical Officer of Health, 1915.
- (8) Ibid., 1931.
- (9) Ibid., 1940.
- (10) Ibid., 1944-46.
- (11) On the State of the Public Health (H.M.S.O.), 1946.
- (12) Ibid.
- (13) G. E. Beaumont. Medicine 1934.
- (14) City & County of Bristol Annual Report of the Medical Officer of Health, 1914.

- (15) On the State of the Public Health (H.M.S.O.), 1936.
- (16) Ibid., 1937.
- (17) H. S. Banks. Serum and Sulphanilamide in Acute Meningococcal Meningitis—
Lancet, 1938, ii, 7.
- (18) On the State of the Public Health (H.M.S.O.), 1946.
- (19) Ibid.
- (20) Muir and Ritchie. Manual of Bacteriology, 1937—580.
- (21) Medical Research Council, War Memorandum No. 10 (H.M.S.O.), 1945.
- (22) H. V. Smith, E. S. Duthrie, H. Cairns.—Lancet 1946, i, 185.
- (23) The Medical Annual, 1947, 182.
- (24) R Sohler, Y. Gaubert. Pr. med., 1946, 30, 433.

Appendix XI.

A.—VITAL STATISTICS.

Table 1.—Supplied by the Registrar General.

Population, marriages, births, deaths, natural increase, infant mortality, for
Calendar Year 1947 and previous seven years.—Bristol.

	1947	1946	1945	1944	1943	1942	1941	1940
Estimated civilian population (mid year)	428,600	417,090	414,320	405,530	370,800	362,200	360,150	411,400
Marriages.								
Number	4,033	3,818	3,919	3,071	3,123	4,131	4,125	5,099
Rate per 1,000 population ...	18.82	18.31	18.92	15.15	16.8	22.8	22.9	24.79
Births.								
Legitimate—males	4,430	3,913	3,352	3,726	3,369	3,164	2,614	3,180
females	4,239	3,621	3,078	3,492	3,082	2,956	2,516	2,973
Illegitimate—males	241	255	301	290	214	158	113	100
females	232	252	296	259	220	144	136	110
Total	9,142	8,041	7,027	7,767	6,885	6,422	5,379	6,363
Rate per 1,000 population ...	21.33	19.28	16.96	19.15	18.57	17.73	14.94	15.47
Stillbirths.								
Legitimate—males	100	117	78	115	101	123	88	117
females	94	86	81	85	97	96	82	103
Illegitimate—males	11	8	9	15	5	8	5	4
females	4	6	9	3	6	3	8	4
Total	209	217	177	218	209	230	183	228
Rate per 1,000 total births ...	22	26	25	27	29	34	33	35
Deaths.								
Males	2,563	2,424	2,387	2,308	2,327	2,203	2,841	3,176
Females	2,551	2,473	2,418	2,149	2,271	2,162	2,772	3,240
Total	5,114	4,897	4,805	4,457	4,598	4,365	5,613	6,416
Rate per 1,000 population ...	11.93	11.75	11.60	10.99	12.40	12.05	15.59	15.60
Natural increase per 1,000 popu- lation	9.39	7.54	5.36	8.16	6.17	5.68	decrease .65	decrease .13
Deaths under 1 year.								
Legitimate	255	273	208	244	290	221	253	336
Rate per 1,000 legit. live births	29	36	32	34	45	36	49	55
Illegitimate	12	26	37	24	23	14	37	22
Rate per 1,000 live births ...	25	51	62	44	53	46	149	105
Total deaths	267	299	245	268	313	235	290	358
Rate per 1,000 births	29	37	35	35	45	37	54	56
Deaths under 1 month.								
Total deaths	160	192	140	143	191	167	138	196
Rate per 1,000 live births ...	18	24	20	18	28	24	27	30
Diarrhoea and enteritis— (under two years)								
Deaths	16	25	22	33	31	8	25	42
Rate per 1,000 live births ...	1.7	3.1	3.1	4.2	4.5	1.25	4.7	6.6
Maternal mortality.								
Deaths from puerperal sepsis...	2	2	3	3	2	2	2	5
Rate per 1,000 total births ...	0.21	0.24	0.42	0.37	0.28	0.30	0.37	0.76
Deaths from other puerperal								
causes	9	16	6	7	8	11	5	13
Rate per 1,000 total births ...	0.96	1.94	0.83	.88	1.13	1.80	0.92	1.97
Total deaths from puerperal								
causes	11	18	9	10	10	13	7	18
Rate per 1,000 total births ...	1.17	2.18	1.25	1.25	1.41	2.10	1.29	2.73

Table 2.—*Supplied by the Registrar General.*

Birth-rates, death-rates, infant mortality, maternal mortality and case-rates for certain infections diseases in the year 1947.

(Provisional figures based on weekly and quarterly returns).

	Bristol	England and Wales	126 County Boroughs and great towns including London	148 Smaller towns (resident populations 25,000 to 50,000 at 1931 Census)	London Administra- tive County
*Rates per 1,000 civilian population.					
BIRTHS :					
Live	21.33	20.5 (A)	23.3	22.2	22.7
Still	0.49	0.50 (A)	0.62	0.54	0.49
DEATHS :					
All causes	11.93	12.0 (A)	13.0	11.9	12.8
Typhoid and para- typhoid fevers	—	0.00	0.00	0.00	0.00
Smallpox	—	0.00	0.00	0.00	—
Measles	0.007	0.01	0.02	0.02	0.01
Scarlet fever	—	0.00	0.00	0.00	0.00
Whooping cough	0.009	0.02	0.03	0.02	0.02
Diphtheria	—	0.01	0.01	0.01	0.01
Influenza	0.107	0.09	0.09	0.08	0.08
Notifications :					
Smallpox	—	0.00	0.00	0.01	0.00
Scarlet fever	1.08	1.37	1.54	1.37	1.31
Diphtheria	0.11	0.13	0.15	0.18	0.22
Enteric fever	0.01	0.02	0.02	0.01	0.02
Erysipelas	0.34	0.19	0.21	0.18	0.22
Pneumonia	1.00	0.79	0.89	0.68	0.64
Measles	9.02	9.41	9.13	9.58	5.29
Whooping cough	1.74	2.22	2.41	2.02	2.80
Cerebro-spinal meningitis	0.07	0.05	0.06	0.05	0.05
Rates per 1,000 live births.					
Deaths under 1 year of age	29	41 (B)	47	36	37
Deaths from diarrhoea and enteritis under 2 years of age	1.75	5.8	8.0	3.7	4.8
MATERNAL MORTALITY :					
Puerperal sepsis	0.22	Not available			
Others	0.98				
Total	1.20				
Rate per 1,000 total births (i.e., live and still).					
MATERNAL MORTALITY :					
Puerperal sepsis	0.21	0.26			
Others	0.96	0.91			
Total	1.17	1.17			
NOTIFICATIONS :					
Puerperal fever	13.80	7.16	8.99	6.27	{1.21 6.94(C)
Puerperal pyrexia					

Abortion :—Mortality per million women aged 15-45 in England and Wales
with sepsis ... 9
without sepsis ... 5

* A dash (—) signifies that there were no deaths.

(A) = Rates per 1,000 TOTAL population.

(B) = Per 1,000 related births.

(C) = Including puerperal fever.

Table 3.

*Compiled from figures supplied by Registrar General.***Total deaths by cause and age during the calendar year 1947.—Bristol.**

CAUSES OF DEATH	Sex	All Ages	0—1	1—5	5—15	15—45	45—65	65+
ALL CAUSES	M.	2,563	159	22	30	206	760	1,386
	F.	2,551	108	22	14	203	526	1,678
1. Typhoid & paratyphoid fevers	M.	—	—	—	—	—	—	—
	F.	—	—	—	—	—	—	—
2. Cerebro-spinal fever ...	M.	3	1	1	1	—	—	—
	F.	2	2	—	—	—	—	—
3. Scarlet fever	M.	—	—	—	—	—	—	—
	F.	—	—	—	—	—	—	—
4. Whooping cough	M.	1	1	—	—	—	—	—
	F.	3	2	—	1	—	—	—
5. Diphtheria	M.	—	—	—	—	—	—	—
	F.	—	—	—	—	—	—	—
6. Tuberculosis of respiratory system	M.	139	1	1	—	55	72	10
	F.	102	1	1	1	76	18	5
7. Other forms of Tuberculosis	M.	20	2	2	9	6	1	—
	F.	15	—	6	—	5	4	—
8. Syphilitic disease	M.	21	—	—	—	—	14	7
	F.	7	—	—	—	1	5	1
9. Influenza	M.	21	4	—	—	3	5	9
	F.	25	—	—	—	1	5	19
10. Measles	M.	1	—	1	—	—	—	—
	F.	2	1	1	—	—	—	—
11. Acute poliomyelitis & poli-encephalitis	M.	—	—	—	—	—	1	—
	F.	1	—	—	—	—	—	—
12. Acute infectious encephalitis	M.	2	—	—	—	—	2	—
	F.	2	—	—	—	—	2	—
13. Cancer of buccal cavity and œsophagus	M.	36	—	—	—	1	8	27
	F.	46	—	—	—	5	18	23
13. Cancer of uterus	M.	80	—	—	—	7	41	32
	F.	53	—	—	—	1	17	35
14. Cancer of stomach and duodenum	M.	1	—	—	—	—	1	—
	F.	67	—	—	—	10	30	27
16. Cancer of all other sites ...	M.	281	—	1	—	22	114	144
	F.	207	—	1	—	10	95	101
17. Diabetes	M.	12	—	—	—	3	3	6
	F.	24	—	—	—	—	6	18
18. Intra-cranial vascular lesions	M.	260	—	—	—	3	53	204
	F.	361	—	—	—	4	70	287
19. Heart disease	M.	711	—	—	—	21	184	506
	F.	824	—	—	—	21	112	691
20. Other diseases of circulatory system	M.	76	—	—	—	6	24	46
	F.	82	—	1	—	4	12	65
21. Bronchitis	M.	169	1	—	1	4	64	99
	F.	121	1	2	1	2	16	99
22. Pneumonia	M.	141	37	6	2	2	40	54
	F.	114	25	6	1	1	13	68
23. Other respiratory diseases ...	M.	36	—	—	—	4	18	14
	F.	28	—	—	1	5	9	13
24. Ulceration of stomach and duodenum	M.	45	1	—	—	2	28	14
	F.	20	—	—	—	1	6	13
25. Diarrhœa (under 2 years of age)	M.	9	9	—	—	—	—	—
	F.	7	7	—	—	—	—	—
26. Appendicitis	M.	9	—	—	2	1	2	4
	F.	7	—	—	2	—	3	2
27. Other digestive diseases ...	M.	40	1	—	—	2	11	26
	F.	52	1	1	—	4	16	30
28. Nephritis	M.	62	1	—	2	5	16	38
	F.	70	—	—	—	10	13	47
29. Puerperal and post-abortive sepsis	F.	2	—	—	—	1	1	—
	F.	9	—	—	—	9	—	—
30. Other maternal causes ...	M.	38	38	—	—	—	—	—
	F.	27	27	—	—	—	—	—
31. Premature birth	M.	69	58	2	2	4	3	—
	F.	50	39	2	—	4	4	1
32. Congenital malformations, birth injury, infantile disease	M.	22	—	—	—	9	7	6
	F.	15	—	—	—	3	9	3
34. Road traffic accidents ...	M.	31	—	4	5	13	5	4
	F.	9	—	1	2	1	1	4
35. Other violent causes ...	M.	55	1	2	3	16	15	18
	F.	45	—	—	2	4	4	35
36. All other causes	M.	172	3	2	3	17	29	118
	F.	152	2	—	3	20	36	91

Table 4.

*Compiled from figures supplied by Registrar General.***Principal causes of death during calendar year 1947.—Bristol.**

Death Rate per 1,000	DISEASE	Net deaths in 1947	% to total deaths
—	Typhoid and paratyphoid fevers	—	—
.012	Cerebro-spinal fever	5	.10
—	Scarlet fever	—	—
.009	Whooping cough	4	.08
—	Diphtheria	—	—
.562	Tuberculosis of respiratory system	241	4.71
.082	Other forms of tuberculosis	35	.68
.065	Syphilitic disease	28	.55
.107	Influenza	46	.90
.007	Measles	3	.06
.002	Acute poliomyelitis and polio-encephalitis	1	.02
.009	Acute infectious encephalitis	4	.08
.084	Cancer of buccal cavity and oesophagus	36	.70
.107	Cancer of uterus	46	.90
.310	Cancer of stomach and duodenum	133	2.60
.159	Cancer of breast	68	1.33
1.139	Cancer of all other sites	488	9.54
.084	Diabetes	36	.70
1.449	Intra cranial vascular lesions	621	12.14
3.581	Heart disease	1,535	30.02
.369	Other diseases of circulatory system	158	3.10
.677	Bronchitis	290	5.67
.600	Pneumonia	255	4.99
.149	Other respiratory diseases	64	1.25
.152	Ulceration of stomach and duodenum	65	1.27
.037	Diarrhoea	16	.31
.037	Appendicitis	16	.31
.215	Other digestive diseases	92	1.80
.308	Nephritis	132	2.58
.005	Puerperal and post-abortion sepsis	2	.04
.021	Other maternal causes	9	.18
.152	Premature birth	65	1.27
.278	Congenital malformations, birth injury, in- fantile disease	119	2.33
.086	Suicide	37	.72
.093	Road traffic accidents	40	.78
.230	Other violent causes	100	1.95
.756	All other causes	324	6.34
11.93	ALL CAUSES	5,114	

Table 5.
POPULATION, BIRTH-RATES, DEATH-RATES, MATERNAL MORTALITY, ETC., IN 16 LARGE TOWNS
for the year 1947,

Name of Town	Population as esti- mated by Registrar- General Mid. 1947	Per 1,000 Population		Death Rates per 1,000 population from:—									Diar- rhea under 2 years, Per 1,000 Live Births	Infantile Mortality Rate	Maternal Mortality per 1,000 total births.		
		Birth Rate	Death Rate	Measles	Scarlet Fever	Whooping Cough	Diphtheria	Typhoid & Paratyphoid	Influenza	Cancer	Pulmon- ary	Tuberculosis Other Forms			From Sepsis	From Other Causes	Total
BIRMINGHAM ...	1,076,250	22.2	11.1	0.02	0.00	0.03	0.00	—	0.08	1.83	0.64	0.05	7.06	41	0.29	0.69	0.98
BRADFORD ...	284,900	22.23	14.73	0.02	0.00	0.01	0.003	0.00	0.08	2.04	0.41	0.09	9.94	59	0.61	0.45	1.06
BRISTOL ...	428,600	21.33	11.93	0.01	—	0.01	—	—	0.107	1.80	0.56	0.08	1.75	29	0.21	0.96	1.17
CARDIFF ...	230,630	22.9	13.1	0.03	—	0.01	0.00	—	0.07	1.90	0.70	0.10	11.13	54	—	1.10	1.10
COVENTRY ...	242,860	23.2	9.9	0.008	—	0.06	0.008	0.004	0.05	1.46	0.67	0.08	3.5	45	0.85	0.39	1.24
KINGSTON UPON HULL ...	289,240	26.8	12.3	0.01	0.01	0.00	—	—	0.04	1.77	0.64	0.13	10.17	52	0.13	0.51	0.64
LEEDS ...	492,140	22.1	13.8	0.04	0.002	0.04	0.002	0.002	0.09	1.92	0.62	0.08	11.22	51	0.09	0.72	0.81
LEICESTER ...	275,830	21.9	12.16	0.018	—	0.01	0.004	—	0.03	1.78	0.67	0.08	13.22	47	—	0.65	0.65
LIVERPOOL ...	753,340	26.4	13.5	0.03	—	0.10	0.01	—	0.05	1.74	0.79	0.11	7.9	69	0.05	0.78	0.83
MANCHESTER ...	685,560	23.09	13.79	0.03	—	0.03	0.003	—	0.05	2.05	0.66	0.09	14.47	60	0.55	0.99	1.54
NEWCASTLE ...	290,470	22.2	12.9	0.01	—	0.03	0.01	—	0.07	1.78	0.87	0.14	3.7	44	—	0.60	0.60
NOTTINGHAM ...	291,150	23.9	12.3	0.01	0.00	0.03	0.00	0.00	0.04	1.77	0.65	0.11	4.4	50	0.28	0.98	1.26
PORTSMOUTH ...	212,020	24.29	12.98	0.02	—	0.02	0.00	—	0.05	2.01	0.64	0.09	3.11	33	0.19	0.38	0.57
PLYMOUTH ...	181,600	24.72	14.09	0.05	0.01	0.01	0.01	—	0.03	1.83	0.77	0.16	1.63	50	—	0.65	0.65
STOKE-ON-TRENT ...	270,200	23.5	12.1	0.045	0.00	0.03	0.00	0.00	0.07	1.77	0.53	0.08	15.1	61	0.00	1.53	1.53
SUNDERLAND ...	178,530	24.4	13.2	0.04	0.005	0.06	0.02	0.00	0.13	1.80	0.60	0.14	11.9	60	0.45	0.45	0.90

Table 6.
Notifiable Cases during 1947 (including Port cases). Local Figures.

NOTIFIABLE DISEASES.	NOTIFICATIONS.										REMOVED TO HOSPITAL		Notified in each quarter.				Attack rate per 1,000 Population	DEATHS (Corrected for transfers.)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
	At all ages	At ages—years :							No.	%	1st	2nd	3rd	4th	All ages	At ages—years :																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
		Under 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 and upwards								1 to 2		2 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 and upwards																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
Diphtheria ...	46	2	13	22	5	3	1	—	43	93.5	9	12	5	20	.107	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 7.
Tuberculosis (including Port cases). Local Figures.

		CASES.												DEATHS. (Corrected for transfers.)																
		At all ages	Under 1	1-	5-	10-	15-	20-	25-	35-	45-	55-	65+	At all ages	Under 1	1-	5-	10-	15-	20-	25-	35-	45-	55-	65+	Death rate				
		Quarters												Case rate per 1,000 Popu'tn																
		1st				2nd				3rd				4th																
Pulmonary tuberculosis Cases notified	454	3	7	12	17	85	82	86	66	56	28	12	109	126	105	114	1.22	241	2	2	1	...	15	26	42	48	40	50	15	0.56
Other cases*	69	1	4	...																										
Non-pulmonary tuberculosis Cases notified	59	1	12	9	8	3	7	5	5	4	1	4	14	18	11	16	.22	35	2	8	6	3	2	3	6	...	1	4	...	0.08
Other cases*	36	2	7	6	1	2	4	7	...	2	4	1	13	13	7	3	1.44	276	4	10	7	3	17	29	48	48	41	54	15	0.64
Total 1947	618	7	30	27	27	92	111	123	76	65	40	20	160	167	137	154														
Total 1946	692	4	28	40	29	104	105	140	92	71	52	27	163	204	161	164	1.66	265	4	10	4	7	19	21	51	41	41	40	27	0.64
1945	632	4	29	41	28	85	96	136	75	55	58	25	173	168	138	153	1.53	297	4	11	3	10	15	32	53	55	41	54	19	0.72
1944	648	3	19	27	35	97	103	119	108	71	42	24	165	177	167	139	1.60	256	3	8	4	1	15	32	53	49	34	37	20	0.63
1943	717	10	16	29	31	90	122	161	96	87	53	22	202	169	160	186	1.98	305	10	14	7	3	22	29	66	49	48	42	15	0.82
1942	587	4	12	10	30	29	59	113	103	94	78	55	153	152	128	154	1.62	264	6	11	3	6	2	21	30	42	53	47	43	0.70
1941	588	7	33	30	21	89	80	113	91	71	37	16	144	167	121	156	1.63	310	5	11	7	4	29	32	65	60	43	35	19	0.86
1940	564	5	40	44	20	81	65	113	85	57	35	19	157	179	120	108	1.37	273	2	16	4	3	24	36	44	47	52	36	9	0.66
1939	567	4	33	43	33	68	75	105	77	66	43	20	154	155	134	124	1.35	313	3	8	4	8	21	25	57	72	54	41	20	0.75
1938	666	4	31	68	42	80	88	131	95	69	41	17	210	170	133	153	1.59	270	1	7	4	2	27	32	65	50	49	22	11	0.64

* Cases coming to the knowledge of the M.O.H. otherwise than by notification.

Table 8.

1947

INFANT MORTALITY. (Corrected for transfers) Local Figures.

Total 1946	CAUSE OF DEATH	Under one day	Under one week	Weeks			Total under one month	Months											Total 1947	Deaths in Quarters						
				Weeks				Months																		
				1-2	2-3	3-4		1	2	3	4	5	6	7	8	9	10	11		1st	2nd	3rd	4th			
...	Chicken pox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	
...	Measles ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	Whooping Cough ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	Diphtheria and croup ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	Erysipelas ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	Tuberculosis meningitis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	Abdominal tuberculosis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	Other tuberculous diseases ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	Meningitis (Non-T.B.) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	Convulsions ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5	Bronchitis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
49	Pneumonia (all forms) ...	...	3	7	3	1	14	8	11	7	3	5	2	4	...	1	1	4	...	2	9	10	...	13	1	
3	Influenza ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
27	Diarrhoea and enteritis ...	...	...	...	...	...	...	3	2	1	1	1	2	1	...	...	...	...	...	...	5	4	...	...	...	
...	Gastritis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	Suffocation, overlaying ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
13	Injury at birth ...	...	5	2	...	...	14	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
29	Atelectasis ...	...	7	3	...	...	19	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
42	Congenital malformations ...	...	6	2	...	...	30	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
97	Premature birth ...	...	32	9	3	1	68	3	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	Atrophy, debility & marasmus ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19	Other causes ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	Syphilis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	Rickets ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
297	Totals ...	50	70	25	10	5	160	29	19	9	6	10	9	7	2	2	7	9	269	95	69	49	...	56	...	

Table 9.

MATERNAL MORTALITY. Uncorrected Local Figures.

Cause of Death	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1947 — AGE GROUPS						
											15—	20—	25—	30—	35—	40+	
Cesarian Section ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Toxemia of Pregnancy ...	3	4	4	1	3	1	4	—	1	3	—	1	1	—	—	—	
Puerperal Sepsis ...	3	2	1	—	—	1	—	1	2	3	—	—	—	—	—	—	
Septic Abortion ...	1	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	
Abortion (non-septic) ...	3	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	
Ruptured Ectopic Gestation ...	1	—	1	1	—	—	1	—	—	—	—	—	—	—	—	—	
Hydatidiform mole ...	4	4	—	—	—	—	3	—	—	—	—	—	—	—	—	—	
Puerperal Toxemia ...	2	5	3	1	1	5	3	2	4	5	—	—	—	—	—	—	
Eclampsia ...	1	1	—	—	—	1	1	1	—	—	—	—	—	—	—	—	
Dystocia ...	1	—	—	—	—	—	2	1	1	—	—	—	—	—	—	—	
Retained Placenta ...	1	—	2	—	1	2	—	—	—	—	—	—	—	—	—	—	
Placenta Praevia ...	2	6	1	—	2	1	1	2	1	—	—	—	—	—	—	—	
Post-Partum hemorrhage ...	3	—	2	1	1	4	1	1	3	2	—	—	—	—	—	—	
Embolism ...	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	
Ruptured uterus ...	3	—	1	1	1	2	—	1	2	1	—	—	—	—	—	—	
Obstetric shock ...	—	—	4	1	1	2	—	1	1	1	—	—	—	—	—	—	
Acute yellow atrophy ...	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	
Chorea ...	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	
Intestinal obstruction ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Uremia ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Pulmonary Oedema ...	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Total ...	23	23	23	5	13	20	15	17	18	16	—	5	1	3	—	—	
Rate per 1,000 total births ...	3.65	2.93	2.83	1.33	1.95	2.65	1.74	2.09	2.02	1.55							3
Deaths in institutions ...	17	17	18	5	12	19	13	17	16	16							—
Age Groups—																	
15—20	—	—	1	—	—	1	—	—	—	—							—
20—25	4	4	4	—	4	4	4	2	—	—							—
25—30	6	4	10	2	4	3	3	1	6	2							—
30—35	4	9	4	2	4	7	6	8	3	3							—
35—40	8	4	4	1	3	3	1	4	4	4							—
40+	1	2	—	—	1	2	1	2	3	3							—

B.—DEPARTMENT OF PREVENTIVE MEDICINE.

Table 1—Pathological and Bacteriological Examinations.

1946		1947
	<i>Swabs.</i>	
	<i>Throat and Nose.</i>	
6,467	K.L.B. Culture	6,735
7	" Virulence	30
2,574	Hæmolytic Streptococci	3,510
1,238	Other organisms	1,827
	<i>Other Sources.</i>	
39	Laryngeal for T.B.	53
	<i>Sputa.</i>	
21	Malignant Cells	49
5,314	Tuberculosis	6,304
48	Pneumococcal Typing	74
774	Other organisms { anaerobic	1,450
39	aerobic	8
	T.B. Culture	—
	<i>Blood.</i>	
139	Special Hæmatology Investigations	544
2,161	Blood counts	4,826
955	Differential counts	1,961
2,505	Hæmoglobin counts	3,961
239	Reticulocyte counts	265
19	Platelet counts	47
823	Sedimentation rate	1,107
10	Bleeding time	224
9	Coagulation time	92
86	Bilirubin investigations	132
28	Sugar tolerance	97
—	Sulphonilamides	1
805	Urea	1,287
232	Sugar	215
79	Agglutination	101
—	Uric acid	10
50	Films for malaria	30
35	Paul Bunnell	28
16	Grouping	28
128	Proteins	446
10	Fragility	11
6	Chlorides	16
66	Phosphatase	272
14	Calcium	19
38	Cholesterol	189
11	Blood Culture (Enteric)	3
59	" (Other organisms)	146
—	Thymol Turbidity	77
	Sodium	1
	Potassium	4
	<i>Stomach Contents.</i>	
2,033	Test Meals	2,849
5	Washings for Tubercle	12
3	Vomits	6
	<i>Fæces.</i>	
697	Enteric	501
73	Food poisoning	274
2,022	Dysentery	1,900
29	Tuberculosis	46
256	Other organisms	474
43	Amoebic dysentery	95
183	Occult blood	353
25	Fat	40
7	Bile Pigments	12
41	Parasites	34
	<i>Urine.</i>	
3,061	Routine	4,184
2,123	Culture	3,188
29	Enteric	13
310	Friedman	237
135	Urea concentration	124
34	T.B.	128
5	Inoculation for T.B.	15
1	Amoebic Dysentery	—
3	Ascorbic Acid	1
2	Hippuric Acid	1
13	Chlorides	80
1	Water Clearance	—
25	Acetone	49
77	Sugar	228

Pathological and Bacteriological Examinations—*continued.*

1946		1947
18	Urobilin	121
68	Bile Pigments	226
1	Sulphonamides	1
57	Penicillin	—
6	Diastase	8
—	Occult Blood	6
86	<i>Pus.</i> Penicillin	59
360	Organisms (aerobic)	507
28	Organisms (anaerobic)	71
—	Trichomonas	4
261	<i>Fluids</i> (for cells, biochemistry and organisms).	
299	Cerebro spinal fluids	2,149
120	Pleural fluids	267
102	Seminal fluids	138
3	Other fluids	177
21	Fluids for penicillin	16
	Pleural fluids for guinea pig inocs. ...	25
332	<i>Histology.</i> Human tissues	462
7	Animal tissues	17
198	<i>Post Mortems</i>	287
264	<i>Waters.</i> Bacterial counts	249
42	Differential counts	2
1	Organisms	1
1,568	<i>Rats.</i> Plague	1,310
	<i>Mice</i>	—
	<i>Milks.</i> Bacteriological—	
134	Accredited	211
341	Tuberculin Tested	201
228	Pasteurised { Schools	282
54	Plants	129
301	Others	159
128	Heat treated	208
711	<i>Chemical—</i> Phosphatase	771
143	Cream Line	208
1,246	Tuberculosis	1,116
1	Dysentery	—
5	Enteric	1
87	Other Organisms	31
226	Ice Creams	197
168	Churn rinses	47
315	Milk Bottle rinses	257
15,472	<i>Venereal Disease.</i> Blood for Wassermann reaction ...	10,087
10,287	Blood for Kahn	8,626
295	Complement Fixation Tests for Gonorrhœa	233
1,790	Blood for Quantitative Wassermann	
271	reaction	1,325
205	C.S. Fluid for Wassermann reaction ...	278
214	C.S. Fluid for Cells	190
234	C.S. Fluid for Chemical	278
14,887	C.S. Fluid for Lange	237
—	Films for Gonococci	9,809
7,914	Urine for Gonococci	1
1	Cultures for Gonococci	6,963
	Fluid for spirochaetes	1
2	<i>Preparations.</i> Tuberculin	3
4	Measles Serum	8
2,325	Penicillin	110
2	Vaccines	5
67	<i>Foodstuffs.</i> Sterility	85
28	Organisms	27
—	Histology	1
15	<i>Whooping Cough Plates</i>	6
	<i>Miscellaneous.</i> Scrapings for fungi	
	Hair and scales for ringworm	
	Tape worm	
	Rope	
	Tooth	
21	Distilled Water	95
	Glucose saline	
	Powder	
	Chaff	
	Penicillin for organism	
	Nurses' masks	
	Sundries	

C.—CLINICS.

Table I—Maternity and Child Welfare.

1946		1947
8,978	(a) <i>Notifications—</i>	
269	Live Births (including 744 premature births) ...	9,972
60	Still Births ...	256
2,214	Confinements at Home—by Doctor ...	49
120	by Midwife ...	3,229
6,897	Premature Births admitted to Hospital (included above) ...	23
	Confinements at Institutions ...	6,873
3,005	(b) <i>Forms of Maternity Assistance Granted—</i>	
—	Midwives' Fees ...	3,337
177	Consulting Obstetricians ...	2
9	Dentures ...	203
402	Spectacles ...	14
	(c) <i>Fees claimed by Medical Practitioners</i> ...	729
1,690	(d) (i) <i>Municipal Midwives—</i>	
300	Cases completed as (a) Midwife ...	2,561
22,795	(b) Maternity Nurse ...	458
19,491	Nursing Visits ...	29,295
2,236	Other Visits ...	17,054
	Attendances at Ante-natal Clinics ...	2,342
1,134	(ii) <i>Pupil Midwives—</i>	
19,060	Cases completed as Midwife ...	1,730
8,791	Nursing Visits ...	29,163
893	Other Visits ...	12,425
	Attendances at Ante-natal Clinics ...	1,164
289	(iii) <i>Medical Students—District Midwifery—</i>	
	Cases attended ...	255
	(e) <i>Attendances at Clinics—</i>	
3,219	(i) <i>Municipal Ante-natal (Medical Officers Sessions).</i>	
3,675	Verrier Road ...	2,829
2,409	Bedminster ...	3,410
2,516	Brislington ...	1,971
5,014	Knowle West ...	2,273
1,534	North Bristol ...	4,890
3,374	Portway ...	1,516
3,694	Central ...	3,149
4,747	South Bristol ...	3,479
4,109	Southmead ...	4,094
1,380	Speedwell ...	3,582
—	Clifton ...	2,198
	Frenchay ...	402
35,671		33,793
26.1	Average per session ...	22.3
6,181	New Patients ...	5,940
1,379	(ii) <i>Municipal Ante-natal (Midwives Sessions)—</i>	
2,242	Verrier Road ...	2,043
510	Bedminster ...	2,626
981	Brislington ...	632
2,311	Knowle West ...	1,121
403	North Bristol ...	2,384
583	Portway ...	572
1,420	Central ...	659
1,375	South Bristol ...	1,618
747	Southmead ...	2,152
112	Speedwell ...	1,366
—	Clifton ...	369
	Frenchay ...	273
12,063		15,815
19.5	Average per session ...	20.2
165	New Patients ...	142
841	(iii) <i>Post natal Clinics—</i>	
327	Central ...	902
396	Bedminster ...	416
605	Speedwell ...	515
124	Southmead ...	702
337	Portway ...	144
613	Knowle ...	448
331	Clifton ...	218
—	Bristol South ...	346
—	Verrier Road ...	186
	Frenchay ...	45
3,574		3,922
9.9	Average per session ...	11.0
1,969	New Patients ...	2,405

Maternity and Child Welfare—continued.

1946		1947
	(iv) <i>Consultative Ante-natal Clinics—</i>	
1,211	Central	1,107
765	Bedminster	993
538	Speedwell	550
1,362	Southmead	1,395
273	Portway	294
446	Knowle	464
634	Bristol South	638
969	Bristol North	1,327
580	Verrier Road	728
—	Clifton Health Centre	24
6,778		7,520
21.7	Average per session	18.5
2,453	New Patients	2,815
	(v) <i>Municipal Infant Welfare Centres—</i>	
	Mothers—	
5,580	Central	5,879
7,916	Speedwell	9,324
6,702	Southmead	6,718
3,620	Portway	3,701
6,725	Knowle West	7,785
5,570	South Bristol	6,694
4,350	Bedminster	5,686
2,100	Barton Hill	2,521
1,047	Headley Park	1,250
1,558	Moorfields	2,052
1,492	Brislington	1,900
2,338	Clifton	3,991
2,764	North Bristol	5,619
2,563	Brynland Avenue	5,598
	<i>From 1st April, 1947—Centres transferred</i>	
	<i>From Voluntary Infant Welfare Associations—</i>	
	<i>*—also see below—</i>	
	Guildford Road	1,556
	Frenchay	1,472
	Bedminster Down	1,927
	Durdham Down	3,467
	Eastville	2,035
	Hotwells	1,810
	Newry Walk	4,483
	Redcliffe	646
	Sea Mills	1,530
	Westbury	1,374
	Dovercourt Road	390
54,325		89,408
29.2	Average attendance per session	32.8
	Children under 1 year—	
3,929	Central	4,061
6,211	Speedwell	7,912
4,883	Southmead	5,310
2,261	Portway	2,617
4,741	Knowle West	5,947
4,848	South Bristol	6,350
3,410	Bedminster	4,726
1,641	Barton Hill	2,084
666	Headley Park	869
1,244	Moorfields	1,630
1,387	Brislington	1,777
2,124	Clifton	3,517
2,661	North Bristol	5,283
2,329	Brynland Avenue	4,818
	<i>From 1st April, 1947—Centres transferred</i>	
	<i>From Voluntary Infant Welfare Association—</i>	
	<i>*—also see below—</i>	
	Guildford Road	1,459
	Frenchay	1,146
	Bedminster Down	1,598
	Durdham Down	2,869
	Eastville	1,687
	Hotwells	1,408
	Newry Walk	3,347
	Redcliffe	506
	Sea Mills	1,253
	Westbury	1,075
	Dovercourt Road	328
42,335		73,577
22.8	Average attendance per session	27.0

Maternity and Child Welfare—continued.

1946		1947
	<i>Municipal Infant Welfare Centres (contd.).—</i>	
	Children between 1 and 5 years—	
1,735	Central	1,954
1,858	Speedwell	1,613
2,104	Southmead	1,877
1,784	Portway	1,729
2,660	Knowle West	2,603
966	South Bristol	954
1,165	Bedminster	1,206
535	Barton Hill	476
508	Headley Park	392
360	Moorfields	471
168	Brislington	231
390	Clifton	624
241	North Bristol	590
444	Brynland Avenue	1,156
	<i>From 1st April, 1947—Centres transferred</i>	
	<i>From Voluntary Infant Welfare Associations—</i>	
	<i>*—also see below—</i>	
	Guildford Road	199
	Frenchay	523
	Bedminster Down	411
	Durdham Down	698
	Eastville	312
	Hotwells	534
	Newry Walk	1,115
	Redcliffe	159
	Sea Mills	409
	Westbury	322
	Dovercourt Road	95
14,918		20,653
8.0	Average attendance per session	7.6
	New Patients—	
4,582	Children under 1 year	7,575
633	Children between 1 and 5 years	988
	(vi) <i>Voluntary Infant Welfare Centres—</i>	
	<i>(Transferred from Voluntary Associations</i>	
	<i>to Municipal, 1st April, 1947,—also see above*)</i>	
19,728	Mothers	4,132
32.3	Average attendance per session	29.1
13,540	Children under 1 year	3,022
22.2	Average attendance per session	21.3
8,101	Children between 1 and 5 years	1,408
13.3	Average attendance per session	9.9
	New Patients—	
1,076	Children under 1 year	309
173	Children between 1 and 5 years	25
	(vii) <i>Birth Control</i>	
354	Attendances	400

Maternity and Child Welfare—continued.

1946		1947
	(viii) <i>Minor Ailments—</i>	
2,968	Inspection	3,646
9,234	Treatment	10,183
1,868	New Patients—Inspected	2,362
3,016	Treated	3,308
66	Ante and Post Natal Exercises	43
18	New Patients	19
	(xi) <i>Sterility Clinic—</i>	
289	Attendances	335
85	New Patients	84
	<i>Backward Children—</i>	
185	Attendances	206
19	New Patients	18
	<i>Special Diagnostic Clinic—</i>	
1,420	Attendances	1,128
415	New Patients	326
	(f) <i>Health Visitors—</i>	
	Visits—	
686	Ante-natal	1,075
7,264	Primary	9,427
24,107	Under one year	28,859
41,485	1—5 years	43,457
1,037	Eye cases	1,256
54	Ophthalmia Neonatorum	109
6	Summer Diarrhoea	5
33	Neo-natal deaths	26
9,059	Other special visits	9,520
18,016	Blank visits	18,929
783	Tuberculosis	520
438	Tuberculosis—Blank visits	287
4	Unmarried mothers	1
77	Children and Young Persons Act	42
	Sessions attended—	
8,293	Clinics	10,534
2,734	Nursery schools and classes (hours)	3,052
	(g) <i>Inspector of Midwives and Nursing Homes—</i>	
	Visits—	
	1. Midwives Acts—	
247	Routine	214
466	Special	586
126	2. Home Helps	114
238	3. Blank visits	239
55	4. Nursing Homes (Routine)	36
23	5. Nursing Homes (Special)	56
	(h) <i>C.M.B. Forms—</i>	
824	A. Medical Help	1,150
10	B. Death	7
27	C. Stillbirth	32
18	D. Laying out the dead	16
26	E. Liability of infection	21
58	F. Artificial feeding	103
	(i) <i>Child Life Protection—</i>	
254	Visits—Child Life Protection Officer	181
436	Health Visitor	328
61	Children under supervision at beginning	49
42	„ added to register	35
	„ removed from register—	
6	(a) at age limit	7
30	(b) transferred to relatives	19
7	(c) legally adopted	2
—	(d) died	—
11	(e) for other reasons	16
49	Children under supervision at end	40
	Persons registered as receiving children—	
27	(a) Individual foster mothers	16
7	(b) Persons i/c Vol. Homes and Institutions	2
—	(c) Persons i/c Residential Nurseries, etc., for profit, etc.	—
—	Prosecutions under the Act	—
	(j) <i>Adoption of Children (Regulation) Act, 1939—</i>	
566	Visits by Adoption Visitor	627
598	„ „ Health Visitor	549
	Applications received—	
98	(a) Children	97
159	(b) Adopters	130
	Children placed on trial with prospective adopters	71
73	Adoptions completed	65
75		

Table 5—Orthopædic Department.

1946			1947	
Patients	Attendances		Patients	Attendances
269	361	Inspections :—	271	369
1,093	1,578	M. & C. W.	1,091	1,713
167	270	School	141	284
		Chest		
1,529	2,209	Totals ...	1,503	2,366
		Treatment :—		
45	873	M. & C. W.	51	740
381	5,854	School	354	4,384
426	6,727	Totals ...	405	5,124

Table 6—Foot Clinic.

1946			1947	
Patients	Attendances		Patients	Attendances
14	44	M. & C. W.	11	21
769	3,049	School	664	2,918
783	3,093	Totals ...	675	2,939

Table 7—Dental Department.

1946			Service.	1947		
Schools	Expectant Mothers & Nursing Mothers	Infants		Schools	Expectant Mothers & Nursing Mothers	Infants
42,416	1,610	933	Inspected	45,427	1,626	1,078
27,082	1,572	876	Requiring Treatment	29,101	1,615	1,059
23,077	1,314	953	Treated	24,562	1,522	1,298
36,480	3,814	1,542	Attendances	36,878	3,979	1,986
			Fillings :—			
15,147	1,079	—	Permanent Teeth	14,989	1,291	—
1,971	—	376	Temporary "	1,406	—	284
			Extractions :—			
4,522	3,617	—	Permanent Teeth	4,487	4,527	—
23,623	—	1,429	Temporary "	21,342	—	1,990
13,161	793	702	Anæsthetic Gas	13,073	1,002	1,007
			Other operations :—			
6,682	966	—	Permanent Teeth	7,070	1,268	—
2,429	—	439	Temporary "	5,406	—	635
			Orthodontic :—			
334	—	—	New patients	437	—	—
1,133	—	—	Total attendances	1,601	—	—
484	—	—	Impressions taken	448	—	—
165	—	—	X-rays	248	—	—

Table 8—Ear, Nose and Throat Department.

1946			1947	
Patients	Attendances		Patients	Attendances
73	98	Inspections :—	76	114
784	1,293	M. & C. W.	761	1,296
64	126	School	67	119
		Chest		
921	1,517	Totals ...	904	1,529
24	303	Treatment :—	29	285
273	5,259	M. & C. W.	388	5,456
		School		
297	5,562	Totals ...	417	5,741

Table 9—X-Ray Department.

1946				1947		
Film	Screen	Total		Film	Screen	Total
6,484	3,498	9,982	Central Health Clinic	6,102	3,844	9,946
4,209	—	4,209	Chest	4,205	—	4,205
822	—	822	G.P.'s	972	—	972
582	—	582	Schools	499	—	499
2,420	—	2,420	M. & C. W.	2,808	—	2,808
			Others			
14,517	3,498	18,015	Southmead Hospital—	14,586	3,844	18,430
1,947	243	2,190	Out-Patients	2,574	340	2,914
16,464	3,741	20,205	Totals ...	17,160	4,184	21,344

Table 10—Scabies Baths.

				Central Health Clinic		Southmead Hospital		Totals	
				1946	1947	1946	1947	1946	1947
Children	...	...	...	2,306	1,284	407	317	2,713	1,601
Infants	...	...	...	837	500	107	119	944	619
Adults									
Females	...	...	...	1,982	1,051	205	167	2,187	1,218
Males	...	...	...	1,355	763	—	—	1,355	763
Total Attendances	...			6,480	3,598	719	603	7,199	4,201
† New Patients—									
Children	...	...	...	1,142	666	170	123	1,312	789
Infants	...	...	...	417	251	43	54	460	305
Adults									
Females	...	...	...	1,009	553	94	68	1,103	621
Males	...	...	...	747	420	—	—	747	420
Total New Patients	...			3,315	1,890	307	245	3,622	2,135

In addition to the above, 95 patients involving 172 attendances were dealt with for adjacent authorities.

† Included in "Total Attendances."

Table 11—Dispensary.

(1) Establishments served—						1947
Central Health Clinic						
Health Centres and Clinics (34)						
Hospitals and Institutions (14)						
Day Nurseries, Special Nursery						
Schools and Classes (72)						
Municipal Midwives (69)						
Social Welfare District Medical Officer						
(2) Turnover of Drugs, Dressings, etc.—						
Quantity of mixtures made ...	...	...	gallons	...	...	1,261
ointment made ...	...	...	lbs.	...	...	661
Vit. A. & D. Emulsion ...	...	...	gallons	...	...	271
Vit. A. & D. Capsules ...	...	...	caps.	...	...	282,100
Whooping Cough Vaccine ...	...	...	cc	...	...	375
A.P.T. Diph. Proph. (5 cc vials) ...	...	...	cc	...	...	11,215
Other Medicines dispensed ...	...	...	gallons	...	...	313
Lint and Cotton Wool ...	...	...	lbs.	...	...	3,064
Insulin supplied ...	...	...	cc	...	...	32,580
Anahæmin supplied ...	...	...	1 cc ampoules	...	...	1,215
(3) Bulk purchase of Drugs—						
			lbs.	...	...	4,489
			gallons	...	...	569
			tabs.	...	...	1,375,000

Table 12—Immunisations, Vaccinations, etc.

1946						1947	
		(i) <i>Diphtheria</i> —Number of immunisations completed at Schools, Clinics and Nurseries, General Practitioners during the year.					
4,941		Full course—Ages 0—5 years ...				5,137	
2,899		Ages 5—15 years ...				1,093	
6,592		Booster dose —15 years ...				3,041	
14,432		Totals ...				9,271	
No. of persons inoc.	No. of injects.					No. of persons inoc.	No. of injects.
		(ii) <i>Other inoculations</i> —					
		Cholera ...				60	102
		Typhus ...				59	110
		Typhoid ...				99	178
		Tetanus ...				9	12
		Other injections ...				3	4
181		Totals ...				230	406
		(iii) <i>Vaccination</i> —					
2,586		The number of primary and re-vaccination certificates received during the year ...				2,898	

Table 13—Chest Clinic.

1946		1947
1,863 730	New Patients—adults children	1,600 653
8,942 1,490	Re-examination—adults children	9,274 1,670
11,938 2,867	Total attendances (including above)—adults children	12,032 2,917
469	Home Visits—	
1,354	Doctors	521
313	Nurses	1,387
233	Injections—Tuberculin	243
3,086	Other	230
1,001	Artificial pneumothorax refills	3,641
270	Ultra-violet light cases	815
126	Orthopaedic Surgeon	284
14,191	E.N.T. Surgeon	119
1,723	X-rays	14,151
21	Sputum examinations	1,481
46	Personal consultations—at home Other	21 53
648	Admissions to Institutions :—	
216	Adults	623
	Children	170
3,702	Cases on Register at end of year—	
1,138	Pulmonary	3,807
	Non-Pulmonary	1,156

Table 14—Tuberculosis Welfare Department.

1946		1947
	Allowances in cash.	
	Total applications granted:—	
253	(a) Maintenance	242
45	(b) Discretionary (also included in (a))	55
35	(c) Special Payments	39
31	(d) Social Welfare	38
296	Patients in receipt of allowances at end of year	311
	Allowances in kind.	
182	Free Milk grants—new cases	190
341	“ “ —renewals	582
185	Total patients in receipt of milk at end of year	213
	Voluntary Care Committee.	
161	Allowances—in kind	154
43	in cash	18
	Rehabilitation.	
	Patients referred to Ministry of Labour for suitable employment	66
40	Patients introduced to Training Centre	2
5	Successfully introduced to employment:—	
	(a) Part-time	2
3	(b) Full-time	27
21		

Table 15—Mass Radiography.

1946				1947		
Males	Females	Total		Males	Females	Total
17,425	14,150	31,575	Miniature X-ray—			
			Number of films made	22,012	13,675	35,687
1,193	588	1,781	Large films—			
150	152	302	New cases	1,195	515	1,710
3	1	4	Repeat	102	95	197
			Other	—	—	—
231	115	346	Clinical examinations—			
124	126	250	First examinations	276	126	402
			Re-examinations	127	112	239

Table 16—Venereal Diseases.

1946				Clinics	1947			
Guardian House	Avonmouth	Southmead	Snowdon Road		Guardian House	Avonmouth	Southmead	* Frenchay General Hospital
2,379	513	222		New Patients	1,970	536	154	
265	19	42		Syphilis	202	32	14	
11	1	6		„ (congenital included above)	8	—	—	
11	26	1		Soft Chancre	7	17	1	
556	177	21		Gonorrhœa	519	235	14	
1,547	291	158		Non-Venereal	1,242	252	125	
3,814	703	391		Total Patients	3,572	685	314	
23,991	4,140	1,989		Total Attendances	19,322	4,021	1,787	
23,227	2,884	1,954		Individual attention by Medical Officer	19,058	2,820	1,766	
764	1,256	35		Investigation, Dressings, etc.	264	1,201	21	
1,258	74	114		Under treatment end of year	1,213	70	111	
710	11	89		Syphilis	752	14	83	
6	4	—		Soft Chancre	1	—	—	
357	40	12		Gonorrhœa	301	36	9	
185	19	13		Non-Venereal	159	20	19	
—	—	212	160	In-patients	—	—	—	343
—	—	4,765	5,034	In-patient days	—	—	—	8,174

* { Includes transfer from Snowdon Road—March.
 { Includes transfer from Southmead—September.

Table 17—Incidence of Venereal Diseases, 1938—1947.

BRISTOL.

	1938.		1939.		1940.		1941.		1942.		1943.		1944.		1945.		1946.		1947.	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Total Syphilis ...	94	76	74	74	85	30	144	61	225	73	238	117	152	137	120	140	186	140	156	92
Early Syphilis (included in total)	53	10	43	13	42	8	114	23	182	43	199	73	126	97	89	78	139	93	120	60
Gonorrhœa ...	415	107	377	125	331	98	398	124	440	157	526	186	317	235	354	176	600	154	634	134
Chancroid ...	5	—	5	—	8	—	2	—	38	—	7	—	31	—	35	5	34	4	24	1

Table 18—V.D. Welfare Department.

1946			1947	
M.	F.		M.	F.
1,009	572	Number of cases on Welfare Officer's Register ...	864	530
2,863	873	Number of new cases added during year ...	2,289	687
221	230	Attendances at Clinics ...	201	238
		Interviewed in Clinics—		
323	264	(a) Primary cases ...	425	325
491	797	(b) Current cases ...	530	684
195	187	(c) Hospital In-patients ...	340	190
		Visiting—		
287	173	(a) Primary cases—First visit ...	144	168
27	9	Second visit ...	27	7
4	1	Repeat visit ...	8	2
247	157	Examined ...	116	149
603	447	(b) Defaulters—First visit ...	707	526
33	42	Second visit ...	48	33
14	5	Repeat visit ...	17	7
494	281	Return for treatment ...	539	340
109	117	Number of visits for other specified purposes ...	113	121
1,077	784	Total number of visits for all purposes ...	1,064	864
72	98	Number of consultations with Voluntary bodies ...	70	109
		Regulation 33B. (included in above figures)—		
32	79	1—(a) Total number for whom Form 1 was received ...	5	45
42	54	(b) Form 1 sent to M.O.H. of other districts ...	15	37
		2— Number in (1) persuaded to be examined before named on second Form 1—		
29	56	(a) Contacts found ...	5	28
29	51	(b) Contacts examined ...	5	26
2	19	3— Number in (1) for whom two or more Forms 1 were received ...	—	14
2	14	4— Number of those in (3) who were:—		
2	7	(a) found ...	—	13
1	7	(b) examined after persuasion ...	—	10
1	7	(c) served with Form 2 ...	—	4
—	—	(d) examined after service of Form 2 ...	—	3
		(e) prosecuted ...	—	1
		Rehabilitation—		
53	41	(a) Successfully introduced to employment ...	27	29
15	17	(b) Successfully introduced to club or other suitable organisation ...	10	9

Table 3—Nurseries.

No. on Register 31.12.46		Places Provided 31.12.47	No. added to Register	No. Re- moved from Register	No. of Deaths	No. on Register 31.12.47	Wait- ing List
	No.						
179	(i) Residential ... (5)	183	334	351	—	162	39
560	(ii) Day ... (13)	520	460	467	—	553	162

Table 4—Home Helps.

1946								1947
200	Total cases helped—							
260	(a) Maternity ...	...	...	...	...	...	...	328
	(b) Sickness ...	...	...	...	...	...	...	240
2,496	Total days helped—							
3,588	(a) Maternity ...	...	...	...	...	...	...	3,704
	(b) Sickness ...	...	...	...	...	...	...	3,516

E.—SANITATION, HOUSING, SHOPS ACTS, ETC.

Table 1—Sanitary Inspectors.

1946			1947		
Visits	Re-visits	Total	Visits	Re-visits	Total
—	—	6,627	—	—	6,171
—	—	710	—	—	365
5,646	23,029	28,675	6,650	27,273	33,923
4	6	10	1	1	2
6	5	11	20	41	61
35	70	105	17	22	39
318	920	1,238	393	965	1,458
141	345	486	157	450	607
44	129	173	109	179	288
49	89	138	77	188	265
46	183	229	83	245	328
111	486	597	116	299	415
1	—	1	1	3	4
27	40	67	18	48	66
14	37	51	21	40	61
16	6	22	39	27	66
22	71	93	37	113	150
38	168	206	11	29	40
25	47	72	33	45	78
338	147	485	529	180	709
913	1,066	1,979	1,361	1,381	2,742
		2,752			458
Complaints received			Complaints received		
Recommendations for Housing accommodation			Recommendations for Housing accommodation		
Visits—			Visits—		
Dwelling houses (P.H.)			Dwelling houses (P.H.)		
Houses let in lodgings			Houses let in lodgings		
Common lodging houses			Common lodging houses		
Foodshops—Registerable			Foodshops—Registerable		
Not registerable			Not registerable		
Other shops			Other shops		
Bakehouses			Bakehouses		
Workplaces and Offices			Workplaces and Offices		
Factories—Non-mechanical			Factories—Non-mechanical		
Mechanical			Mechanical		
Outworkers			Outworkers		
B.C. Act, 1926, Section 62			B.C. Act, 1926, Section 62		
Smoke observations			Smoke observations		
Offensive trades			Offensive trades		
Entertainment places			Entertainment places		
Tents, Vans and Sheds			Tents, Vans and Sheds		
Keeping of animals			Keeping of animals		
Food inspection			Food inspection		
All other matters			All other matters		
Infectious diseases			Infectious diseases		

In-tima-tion	Statu-tory	Compliance		In-tima-tion	Statu-tory	Compliance	
		I.	S.			I.	S.
1,917	2,023	1,188	1,329	2,322	2,136	2,408	1,936
3	—	—	—	—	—	—	—
—	—	1	—	1	—	—	—
5	—	—	—	1	—	1	—
63	—	69	—	52	2	48	4
37	—	15	1	49	—	42	5
6	—	11	1	13	—	13	3
7	—	5	—	6	—	10	1
19	—	36	—	17	—	23	2
21	—	36	—	12	—	22	—
—	—	—	—	—	—	—	—
—	1	—	1	—	—	—	—
—	—	1	—	1	—	1	—
1	—	—	—	—	—	—	—
2	—	3	—	5	—	2	—
—	—	—	—	—	—	—	—
2	—	1	—	6	—	8	—
—	—	—	—	—	—	—	—
19	—	15	2	16	—	5	—
Notices—				Notices—			
Dwelling houses (P.H.)				Dwelling houses (P.H.)			
Houses let in lodgings				Houses let in lodgings			
Common lodging houses				Common lodging houses			
Foodshops—Registerable				Foodshops—Registerable			
Not registerable				Not registerable			
Other shops				Other shops			
Bakehouses				Bakehouses			
Workplaces and Offices				Workplaces and Offices			
Factories—Non-mechanical				Factories—Non-mechanical			
Mechanical				Mechanical			
Outworkers				Outworkers			
B.C. Act, 1926, Section 62				B.C. Act, 1926, Section 62			
Smoke observations				Smoke observations			
Offensive trades				Offensive trades			
Entertainment places				Entertainment places			
Tents, Vans and Sheds				Tents, Vans and Sheds			
Keeping of animals				Keeping of animals			
Food inspection				Food inspection			
All other matters				All other matters			

Table 2—Remedial Action.

1946		1947
	<i>Drainage Works—</i>	
144	New drains laid	86
439	Drains repaired	631
587	Choked drains cleared	614
130	Tests made	97
	<i>Sanitary Conveniences—</i>	
160	Flushing appliances introduced	244
24	Additional closets fitted	34
16	Separate closets for sex provided	4
220	New pans fitted	228
1	Action re bathroom and geyser vent	—
41	Urinals fitted	1
363	Other works	299
60	Intervening vent space provided	41
—	Cesspools abolished	13
	<i>Water Supplies—</i>	
48	New and additional installation	235
3	Hot water installed	8
—	Wells closed	—
	<i>Other Sanitary Fittings—</i>	
117	New sinks fitted	123
5	Additional sinks provided	6
26	Wash basins provided	22
	<i>Other Works—</i>	
1,196	Roofs repaired	1,231
717	Dampness remedied	824
2,842	Other new and repair works	3,742
50	Yards paved and drained	62
220	Houses cleansed—Dirty	249
159	Verminous	38
5	Food store installed—cooking facilities improved	2
31	Lighting improved	14
37	Ventilation improved	56
4	Meal rooms provided	3
13	Heating provided	8
—	Exhumations	—
	<i>Keeping of Animals—</i>	
1	Provision of manure receptacles	1
2	Drainage provided	1
2	Removal of manure	1
	<i>Aged and Infirm Persons—</i>	
11	Removals—Voluntary	11
1	Court order	1
	<i>Smoke Observations—</i>	
3	Infringements—Found	6
3	Remedied	6
	<i>Noise—</i>	
6	Nuisances—Found	3
6	Abated	3
	<i>Other Nuisances—</i>	
477	Found	351
477	Abated	351

Table 3—Housing Acts.

1946		1947
	<i>Inspections—</i>	
—	Section 9	—
39	„ 11 and 12	101
—	Clearance area	—
	<i>Represented to Committee—</i>	
—	Section 9	—
39	„ 11 and 12	101
—	Clearance area	—
	<i>Orders Made—</i>	
26	Section 11 (demolition)	61
11	„ 12 (closing orders)	10
21	„ 11 (undertakings to repair accepted)	5
2	„ 11 (undertakings not to use accepted)	7
	<i>Houses Repaired—</i>	
1	Section 9—Informal	—
2	„ 9—Formal	15
—	„ 9—Formal by Corporation in default	—
6	Undertakings to repair	10
2	Undertakings not to use cancelled after repair	—
1	Other repairs	8

Table 4—Dairies, Milkshops, etc.

1946	REGISTRATIONS.	1947
931	Personal	859
	Milk :—	
123	Dairies	118
144	Dairies outside City retailing within	91
611	Milkshops	600
53	Cowsheds	50
	Ice-cream :—	
	Premises for manufacture	2
262	Manufacture, sale and storage	120
	Storage	187
	Licences :—	
	Tuberculin Tested—	
2	To produce	3
—	To produce and bottle	—
8	To bottle and sell	12
17	To sell only	24
6	Supplementary	10
	Accredited—	
10	To produce	12
1	To produce and bottle	—
1	To bottle	1
1	To sell only	1
3	Supplementary	3
	Pasteurised—	
8	To produce and sell	8
54	To sell only	55
3	Supplementary	3

Dairies, Milkshops, etc. (contd.).

1946		SAMPLES.	1947	
Samples taken	Samples not complying		Samples taken	Samples not complying
234	27	Pasteurisation Test (Schools)	227	16
70	—	Tubercle Examination (including repeats)—		
583	—	City	97	—
540	—	Somerset	354	—
20	—	Gloucestershire	611	—
5	—	Other counties	12	—
159	27	Tuberculin Tested (certified)	4	—
23	3	Tuberculin Tested	142	61
134	29	Pasteurised	11	2
179	6	Accredited	141	44
307	20	Heat-treated	188	5
1,528	—	Institution Tests	331	37
211	129	Under Food and Drugs Act	1,322	—
251	33	Ice-cream	183	106
334	88	Waters	377	47
1,468	—	Others	281	73
58	—	Faeces	1,337	—
500	166	Plant tests	129	—
—	—	Churn or bottle rinses	294	113
		Blood tests	—	—

1946	VISITS AND NOTICES.							1947
	<i>Visits—</i>							
1,322	Dairies							1,085
164	Milkshops							125
287	Cowsheds and Farms							228
243	Corporation Institutions							228
226	Schools							251
3,355	Others							3,484
541	Ice-cream premises							980
	<i>Notices—</i>							
23	Verbal							6
13	Verbal compliance							11
19	Written							22
14	Written compliance							24
	<i>Remedial Action—</i>							
	<i>Premises—</i>							
1	New built							1
5	Altered or repaired							17
3	Roofs repaired							5
24	Cleansed—Dairies							19
8	Other defects							27
3	Plants installed—sterilising							6
1	New or additional water supply installed							3
—	Hot Water facilities							8
	<i>Drainage—</i>							
—	Tests made							2
1	New drains							1
1	Repairs							2
—	Chokages cleared							4
	<i>Water Closets—</i>							
1	Flushing appliances							2
2	New pans							4
3	Other repairs and cleansing							8
—	Cesspools abolished							—
—	Cesspools provided							—
7	Other nuisances abated							9

Table 5—Inspection of Meat and other Foods.

1946		1947
	<i>Visits—</i>	
914	Meat Markets	492
2,377	Shops	3,850
2	Cattle Markets and Railway Sidings	4
—	Fish curing premises	—
46	Sausage making premises	42
—	Cold Stores	—
37	Connection with food poisoning	199
—	Street traders	46
83	Institutions	98
1,637	Slaughterhouses	1,535
	<i>Remedial Action—</i>	
—	Slaughterhouses cleansed	—
—	Slaughterhouses rebuilt, repaired or altered	—
—	Sanitary defects, etc.	—

1946			1947	
City	Abattoir		City	Abattoir
		<i>Animals examined</i>		
9,622	11,810	Beasts	9,403	11,888
2,615	6,145	Calves	2,346	5,309
44,609	50,477	Sheep	29,726	35,613
898	800	Pigs	195	128
14,765	—	Pigs (Imported)	8,036	—
15,844	—	„ Bacon	6,756	—
—	18	Goats	9	4
		<i>Carcases destroyed —</i>		
234	416	Beasts	225	458
15	11	Calves	6	22
74	54	Sheep	78	97
27	8	Pigs	28	7
—	—	Goats	—	—

1946		1947
Tons		Tons
	<i>Meat destroyed from—</i>	
146	Slaughterhouses and shops	171
—	Cold Stores	—
177	Abattoir	204
130	Fish, Poultry, Vegetables, etc.	168

Table 6—Disinfections, Drain Tests, etc.

1946		1947
5,225	Premises disinfected	4,051
82,632	Articles disinfected	70,317
1,940	Articles destroyed	1,786
548	Vermin repression—by spraying	721
9	„ „ by fumigation	1
130	Vermin baths—Men	158
6	„ „ Women	14
470	Foodstuffs, etc., destroyed	750
165	Drain tests	123
349	Other work	518

Table 7—Rat Repression.

1946					1947			
Business Houses	Houses	Other	Total		Business Houses	Houses	Other	Total
9	11	6	26	Complaints incompletely dealt with b/forwd. ...	4	2	1	7
434	822	188	1,444	Complaints received ...	759	1,437	47	2,243
443	833	194	1,470		763	1,439	48	2,250
345	532	160	1,037	Remedial action—				
26	71	2	99	Infestation cleared—				
68	228	31	327	By Corporation ...	646	1,054	33	1,733
4	2	1	7	By occupiers ...	16	31	—	47
443	833	194	1,470	No action required ...	90	331	13	434
				Incompletion at end of year carried forward ...	11	23	2	36
					763	1,439	48	2,250
13	—	44	57	Places subject to routine visits ...	47	—	17	64
132	—	542	674	No. of visits ...	353	—	462	815
434	822	188	1,444	Notices served—				
—	—	—	—	Informal ...	759	1,437	47	2,243
—	—	—	—	Statutory (formal) ...	—	—	—	—
				Statutory notices compliance ...	—	—	—	—
Avon-mouth	Bristol	Portis-head	Total		Avon-mouth	Bristol	Portis-head	Total
2,199	122	5	2,326	Rats recovered—				
189	118	4	311	Docks, quays, wharves, etc.—				
718	110	—	828	Brown ...	963	125	2	1,090
584	45	74	703	Black ...	463	39	9	511
				Species not recorded ...	—	—	—	—
				Examined for plague ...	673	39	—	712
				Mice ...	2,475	41	1	2,517
			2,553	City—				
			672	Brown ...				1,398
			—	Black ...				471
			144	Species not recorded ...				—
			1,915	Examined for plague ...				115
				Mice ...				1,786

Table 8—Shops Acts and Young Persons.

1946		1947
	<i>Visits—</i>	
6,268	Retail	4,744
191	Wholesale	113
	<i>Re-visits—</i>	
2,492	Retail	1,454
58	Wholesale	24
	<i>Infringements—</i>	
1,476	Failure to exhibit notices	756
95	Half holiday and statutory holiday	70
46	Hours of young persons	14
53	Meal intervals	48
18	Seats for female assistants	6
	<i>Assistants' Facilities Improved—</i>	
46	Sanitary	24
6	Heating	3
	Ventilation	4
7	Facilities for meals	1
4	Lighting	2
14	Washing	97
116	Referred to C.S.I. (Section 10)	
268	Verbal warnings	136
22	Warning letters	16
5	Legal proceedings	3
—	Visits to cinemas	—
	<i>Shops Acts and Sunday Entertainment—</i>	
71	Visits	77
2	Re-visits	1
3	Infringements—Holidays	6
6	Records	1
	<i>Young Persons (Employment) Act, 1938—</i>	
126	Visits	55
19	Re-visits	3
12	Infringements	3
9	Verbal warnings	3

F.—BRISTOL PORT HEALTH AUTHORITY. 1947

Table 1—Amount of Shipping entering the Port during the year 1947
(Avonmouth, Portishead and Bristol.)

	Number *	Tonnage *	Number inspected		Number reported to be defective	Number of vessels on which defects were remedied	Number of vessels on which defects were found and reported to Ministry of Transport Surveyors	Number of vessels reported as having, or having had, during the voyage, infectious disease on board
			By the Medical Officer of Health	By the Sanitary Inspector				
<i>Foreign—</i>								
Steamers	708	2,213,398	536	536	199	194	—	14
† Motor	—	—	172	172	27	25	—	6
Sailing	—	—	—	—	—	—	—	—
Fishing	—	—	—	—	—	—	—	—
Total Foreign	708	2,213,398	708	708	226	219	—	20
<i>Coastwise—</i>								
Steamers	8,908	1,204,537	2	435	52	50	—	3
† Motor	—	—	1	243	3	3	—	1
Sailing	—	—	—	—	—	—	—	—
Fishing	—	—	—	—	—	—	—	—
Total Coastwise	8,908	1,204,537	3	678	55	53	—	4
Total Foreign and Coastwise	9,616	3,417,935	711	1,386	281	272	—	24**

† Includes mechanically propelled vessels other than steamers.

* Figures supplied by Port Authority. The foreign tonnage includes vessels entering from a coastwise port to load for a foreign port.

** Excluding vessels having venereal disease on board.

CHARACTER OF TRADE OF PORT.

Table 2—Passenger Traffic during the year—1947.

No. of Passengers		1st Class	Transmigrants 2nd Class, 3rd Class,	Totals
<i>Inwards</i> — Aliens British	...	...	...	...
	...	104	—	104
<i>Outwards</i> — Aliens British	...	1,992	—	1,992
	...	111	—	111
		1,702	—	1,702

The foreign ports from which passengers principally arrived were:—Bermuda; Kingston; Abadan; Bahrein; Basra; Montreal and Halifax; New Orleans, San Francisco and New York; Auckland; Melbourne; St. John, N.B.; Rangoon; Aruba; also North and West African Ports and South American Ports.

MEDICAL INSPECTION OF ALIENS.

Table 3—Annual Return by the Medical Inspector of Aliens for the year ended 31st Dec., 1947.

	Total	Number inspected by the Medical Inspector	Number subjected to detailed examination by the Medical Inspector	Certificates Issued				Transmigrants
				Lunatic, Idiot, or M.D.	Undesirable for medical reasons	Physically incapacitated	Suffering from acute infectious disease	
(a) Total number of Aliens landing at the Port ...	104	104	26	—	—	—	—	—
(b) Aliens refused permis- sion to land by Immi- gration Officer ...	29	29	—	—	—	—	—	—
(c) Transmigrants ...	—	—	—	—	—	—	—	—
Total Aliens arriving at the Port ...	133	133	26	—	—	—	—	—

Total number of vessels carrying Alien passengers ... 83 (50 in, 33 out)
Number of vessels dealt with by the Medical Inspector ... 50

Table 4—Cases of Infectious Sickness landed* from vessels.

Disease	No. of Cases during 1947		No. of vessels concerned	Average No. of cases for previous 5 years
	Passen- gers	Crew		
<i>Infectious Diseases, including—</i>				
Pneumonia	—	1	1	3.8
Pulmonary T.B.	2	6	8	15.2
Influenza	—	12	8	5.3
Malaria	—	1	1	10.8
Venereal Disease	—	566	255	401.6
German Measles	—	1	1	3.4
Dysentery	—	1	1	1.0
Other diseases not included in Table 4 above landed* from vessels.				
Disease	No. of Cases during 1947		No. of vessels concerned	Average No. of cases for previous 5 years
	Passen- gers	Crew		
Rheumatism	—	1	1	2.6
<i>Diseases of—</i>				
Nervous system	—	7	7	18.2
Digestive system	2	33	32	34.4
Circulatory system	1	2	3	6.6
Respiratory system	—	7	7	9.6
Skin and Cellular Tissue	—	45	31	30.0
Genito urinary system	—	1	1	4.6
Bones and organs locomotion	—	1	1	8.0
Traumatism	1	16	16	31.8
Ill-defined	—	7	6	10.0

* Includes only cases requiring medical attention, but all were not removed from ships to hospital.

Table 5—Cases of Infectious Sickness on vessels during voyage but disposed of prior to arrival.

Disease	No. of Cases during 1947		No. of vessels concerned	Average No. of cases for previous 5 years
	Passen- gers	Crew		
<i>Infectious Diseases, including—</i>				
Malaria	—	17	1	7.4
Dysentery	1	—	1	0.4
Suspected Scarlet fever	—	1	1	0.2
Chicken pox	3	—	2	1.8

Other diseases not included in above table ON VESSELS DURING VOYAGE but disposed of prior to arrival.				
Disease	No. of Cases during 1947		No. of vessels concerned	Average No. of cases for previous 5 years
	Passen- gers	Crew		
<i>Diseases of—</i>				
Nervous System	—	2	2	1.8
Circulatory	—	2	2	0.6
Respiratory	—	3	3	0.2
Digestive	3	3	4	1.3
Genito urinary system	—	1	1	0.0
Skin and cellular tissue	—	1	1	0.8
Traumatism	—	2	2	0.8

Table 6—Measures of Rat Repression. On vessels.

1947.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Black	137	49	20	161	53	4	47	84	19	22	39	45	680
Brown	—	—	—	—	—	—	—	—	—	—	—	—	—
Species not recorded	—	—	—	—	—	—	—	—	—	—	—	—	—
Examined	96	34	15	86	37	4	46	48	18	19	27	28	458
Infected with plague	—	—	—	—	—	—	—	—	—	—	—	—	—
Mice	—	—	—	—	—	—	—	—	—	1	—	—	1

Table 7—Rats destroyed on Quays, Docks, Wharves and Warehouses.

1947.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Black	28	20	44	12	37	41	50	38	54	65	74	48	511
Brown	136	120	131	90	116	108	95	49	73	90	37	45	1,090
Species not recorded	—	—	—	—	—	—	—	—	—	—	—	—	—
Examined	73	61	62	33	60	44	67	29	74	81	68	60	712
Infected with plague	—	—	—	—	—	—	—	—	—	—	—	—	—
Mice	60	34	184	604	228	1,250	15	41	21	30	25	27	2,517

Table 8—Measures of rat destruction on plague “infected” or “suspected” vessels from plague infected ports arriving at the Port during 1947.

Total No. of such vessels arriving	No. of such vessels fumigated with SO ₂	No. of rats killed	No. of such vessels fumigated with H.C.N.	No. of rats killed	No. of such vessels on which trapping, poisoning, etc. were employed	No. of rats killed	No. of such vessels on which measures of rat destruction were not carried out
57	—	—	*3	101	20	68	37

*One vessel fumigated at the request of the Ministry of Food Infestation Department.

Table 9—Deratisation certificates and Deratisation exemption certificates issued during 1947.

Net Tonnage	No. of ships	No. of deratisation certificates issued after fumigation with:—			After trapping, poisoning, etc.	TOTAL	Deratisation exemption certificates issued	TOTAL certificates issued
		H.C.N.	With Sulphur	H.C.N. and Sulphur				
Ships up to 300 tons ...	6	1	—	—	—	1	5	6
“ from 301/1,000 tons ...	18	1	—	—	—	—	18	18
“ “ 1,001/3,000 “ ...	19	2	—	—	—	2	17	19
“ “ 3,001/10,000 “ ...	88	12	2	—	—	14	74	88
“ over 10,000 tons ...	—	—	—	—	—	—	—	—
Totals ...	131	15	2	—	—	17	114	131

Table 10—Hygiene of Crew's Spaces—Classification of Nuisances.

Nationality of Vessel	No. of vessels inspected	Defects of original construction	Structural defects through wear and tear	Dirt, vermin and other conditions prejudicial to health
British ...	1,101	12	134	688
Other nations ...	285	—	—	37
Totals ...	1,386	12	134	725

Table 11—Meats (Condemned).

Description	Decomposition and Mould				Brine Stain				Contamination and Taint				Totals			
	T.	C.	Q.	lbs.	T.	C.	Q.	lbs.	T.	C.	Q.	lbs.	T.	C.	Q.	lbs.
Beef	2	16	—	6	—	5	—	6	—	11	1	6	3	12	1	18
Mutton & Lamb ...	1	14	1	18	—	2	2	10	2	12	1	1	4	9	1	1
Pork	—	4	—	24	—	—	—	—	—	—	—	—	—	4	—	24
Veal	—	2	—	14	—	—	—	—	—	—	—	—	—	2	—	14
Offal	1	16	2	26	—	3	—	6	—	—	10	—	1	19	3	14
Prepared Meats ...	—	2	1	5	—	—	—	—	—	—	—	—	—	2	1	5
Poultry	—	—	3	21	—	—	—	—	—	—	—	—	—	—	3	21
Totals	6	16	3	2	—	10	2	22	3	3	2	17	10	11	—	13

Table 12—Canned Foods (Condemned).

No. of Tins	Description	Why Condemned	T.	C.	Q.	lbs.
11,725	Canned meats	Blown, burst, rust, holed, crushed and pierced	7	12	1	14 $\frac{1}{2}$
7,295	Evaporated milk	do.	2	19	—	4 $\frac{1}{2}$
68	Canned fish	do.	—	—	2	5 $\frac{1}{2}$
93	.. vegetables	do.	—	1	2	2
79	.. jams	do.	—	1	—	25
1,208	.. fruits	do.	1	5	3	4 $\frac{1}{2}$
17	.. tomatoes	do.	—	—	1	14
103	.. tomato juice	do.	—	1	1	27
55	.. tomato puree... ..	do.	—	4	3	22
Totals			12	7	1	7

Table 13—Miscellaneous Foods (Condemned).

Description	Why Condemned	Weight			
		T.	C.	Q.	lbs.
Fresh fruit	Decomposed and gross contamination	16	7	1	14
Dried fruit	Fermentation, mould and perished fruit, beetle in- fested and gross contamina- tion	4	2	2	24
		41	1	2	26
Fresh vegetabls	Decomposed				
Rolled oats	Moisture contaminated and rancidity	—	17	1	8
Quaker oats	Salt water contamination	—	1	3	10
Yeast	Decomposed, sourness and rancidity	—	—	2	6
Egg powder	Dock water contaminated	—	—	2	11
Fish (frozen)	Decomposed	—	3	—	14
Vinegar	Mould contamination	—	1	3	—
Chestnuts	Mould and decomposed	1	—	2	4
Goosebury pulp	Dirt contaminated	—	4	2	—
Flour	Sourness and fermentation	263	—	—	—
Total Weight ...		327	2	—	5

Table 14—Particulars of foods detained for reconditioning at local or other food depots.
(Forward Notices sent to the appropriate Health Authorities when damaged foods were released to reconditioning depots outside Bristol.)

Description of Food	Quantity	Reason for Detention	Weight in Tons (approx.)
Frozen Lambs	11,401	Taints and contamination	183 $\frac{3}{4}$
Frozen Sheep	1,786	" " "	43
Frozen Beef	810	" " "	60 $\frac{1}{2}$
Frozen Pork	710	" " "	21
Sheep & Lamb Offal (bags)	10	" " "	$\frac{1}{2}$
Beef Offal (bags)	589	" " "	17
Pig Offal (bags)	4	" " "	$\frac{1}{2}$
Canned fruit (cases) ...	284	Stained cases	5 $\frac{1}{2}$
Canned milk (cases) ...	943	" " boxes	20 $\frac{1}{2}$
Dried fruit (boxes) ...	420	Contamination	5 $\frac{1}{2}$
Lard (boxes)	43	" " "	10
Cocoa (bags)	128	Wet damaged	17 $\frac{1}{2}$
Flour (bags)	3,577	Decomposing	223 $\frac{3}{4}$
Potatoes (bags)	83		3 $\frac{1}{2}$
Total approximate tonnage involved			611 $\frac{3}{4}$

Food Samples.

Samples of food examined by bacteriologist and analyst.

No. of Samples Submitted	Articles	Examined for	Result
4 tins	Steak and Kidney Pudding canned	Soundness	3 Genuine 1 unfit for food
2 „	Rasher Bacon, canned ...	„	2 unfit for food
2 „	Peaches, canned	„	2 Genuine
32 „	Evaporated Milk, canned ...	„	27 Genuine 5 unfit for food
1 „	Corned Beef, canned ...	„	1 Genuine
16 „	Boiled Beef and Carrots canned	„	14 Genuine 2 unfit for food
14 „	Stewed Steak, canned ...	„	14 Genuine
2 „	Flour	„	2 unfit for food
2 „	Flour	„	2 Genuine

Appendix XII.

CONSTITUTION OF THE HEALTH COMMITTEE

Chairman: Alderman J. J. Milton, J.P.

Vice-Chairmn: Alderman E. T. Cozens, J. P.

Aldermen: Henley S. Evans

T. Jefferis

Mrs. C. M. Keel

Councillors: G. A. Watson Allan

Mrs. M. L. Gunning

R. N. Harrison

Mrs. M. A. Hennessy

Mrs. I. D. Monk

F. H. Moss

Mrs. A. E. Nutt

P. W. Salmond

Rev. M. Stockwood

Miss H. Strimer

A. J. M. Wright, M.B., B.S. (Lond.), F.R.C.S.

Town Clerk: Alexander Pickard, Esq.

City Treasurer: E. M. Tapson, Esq.

Principal Officers also associated with the work of the department:

City Engineer: H. M. Webb, Esq.

Chief Education Officer: G. H. Sylvester, Esq.

City Valuer: W. A. James, Esq.

City Architect: J. Nelson Meredith, Esq.

Director of Social Welfare: Alexander Pickard, Esq.

City Librarian: J. Ross, Esq.

Cleansing and Transport Officer: H. M. Ellis, Esq.

PUBLIC HEALTH STAFF

Medical Officer of Health: (City, Port and Schools):

R. H. Parry, M.D., B.S. (Lond.), F.R.C.P., D.P.H.

Deputy Medical Officer of Health:

I. G. Davies, M.D., M.R.C.P. (Lond.), D.P.H. (resigned July, 1947)

R. C. Wofinden, M.D., B.S., D.P.H., D.P.A. (appointed September, 1947)

Principal Assistants:

Chief Assistant Medical Officer of Health:

James Hutton, M.D., D.P.H.

Chief Administrative Assistant:

J. G. Watson

Maternity and Child Welfare:

A. T. Ross, M.D., D.P.H.

Port Health:

D. T. Richards, M.R.C.S., L.R.C.P., D.P.H.

Chest Specialist:

C. J. C. Faill, F.R.C.P., Ed.

Venereal Disease:

A. E. W. McLachlan, F.R.C.E., M.B., Ch.B., D.P.H.

Radiology:

J. V. Sparks, B.A., M.R.C.S., L.R.C.P., M.R.C.P., D.M.R.E.

Mass Miniature Radiology:

E. Evelyn Mawson, M. D., Ch.B.

Bacteriology:

K. E. Cooper, B.Sc., Ph.D., M.R.C.S., L.R.C.P., A.I.C.

Clinical Pathology:

Dorothy Woodman, M.D., M.Sc., M.R.C.S., L.R.C.P.

F. J. W. Lewis, M.B., Ch.B.

Assistant Medical Officer of Health:

R. J. Irving Bell, M.R.C.S., L.R.C.P., D.P.H.

Chief Sanitary Inspector:

F. J. Redstone, F.R.San.I., F.S.I.A.

Matron, External Nursing Services:

Miss L. M. Bendall

Public Analyst:

E. G. Whittle, B.Sc., F.R.I.C.

Vetinary Surgeon (part time):

G. E. Henson, F.R.C.V.S.

Hospitals and Institutions:

Ham Green Hospital and Sanatorium:

B. A. I. Peters, B.A., M.D., B.C., D.P.H.

Southmead General Hospital, Snowdon Road Hospital, and Mortimer House Maternity Annexe:

P. Phillips, M.Sc., M.D., Ch.B.

Frenchay General Hospital:

W. L. Broadfoot, M.B., Ch.B.

Frenchay Park Sanatorium:

E. Evelyn Mawson, M.D., Ch.B.

Babies' Home:

Greta Hartley, M.D., M.M.

Residential Nurseries:

A. Alison Craig, M.D. (Lond.), D.P.H., D.C.H.



CITY AND COUNTY OF BRISTOL
EDUCATION COMMITTEE

ANNUAL REPORT

OF THE

SCHOOL MEDICAL OFFICER

R. H. PARRY, M.D., B.S. (Lond.), F.R.C.P., D.P.H.

1947

(FORTIETH YEAR)

INDEX

	PAGE
Artificial sunlight clinic	17
Asthma	16
Aural clinics	9
Chest Clinic	16
Child Guidance Clinic	9
Chiropody Clinic	14
Clinics	7
Co-operation of Parents	27
Dentistry	12
Ear Disease	9
Employment of children	27
Eye Clinics	8
Heart disease and rheumatism	14
Home visiting	7
Immunisation	25
Impetigo	7
Infectious disease	25
Mass Radiography	17
Medical inspection	6
Milk and Meals	27
Nursery Schools and Classes	24
Nurses' Survey	6
Nutrition	24, 36
Open Air Schools	21
Orthodontic treatment	13
Orthopaedic and postural defects	13
Orthoptic treatment	8
Physical education	25
Pre-school children	24
Ringworm	7
Scabies	7
Spastic children	28
Special Schools	20
Speech Clinics	17
Squint	8
Staff	6
Statistical Tables	35
Tonsils and adenoids	9, 30
Treatment	7
Treatment of pre-school children	24
Uncleanliness	6

BRISTOL EDUCATION COMMITTEE

Chairman - Alderman F. C. WILLIAMS.

Vice-Chairman - Councillor R. ST. JOHN READE, M.A.

School Health Service Sub-Committee

Chairman - Councillor Mrs. F. M. BROWN.

Chief Education Officer

G. H. SYLVESTER, M.A.

School Medical Officer and Medical Officer of Health

R. H. PARRY, M.D., B.S. (London), F.R.C.P., D.P.H.

Chief Assistant School Medical Officer

A. L. SMALLWOOD, M.B., Ch.B., D.C.H., D.P.H.

CITY AND COUNTY OF BRISTOL

Population (estimated Mid-1947)	..	..	..	..	..	428,600
Schools :—						
Number of School Departments	..	..	..	..	..	185
Average Number on Registers	..	..	..	..	..	48,870
Average Attendance	..	..	..	..	..	42,561

CITY AND COUNTY OF BRISTOL EDUCATION COMMITTEE

REPORT

of the School Medical Officer for the year ended
31st December, 1947.

INTRODUCTION

I have pleasure in presenting the thirty-ninth Annual Report on the work of the School Health Service. The general standard of health of the school children of the city has been well maintained during the year.

Dr. A. L. Smallwood was appointed Chief Assistant School Medical Officer and commenced duty on 10th April, 1947.

The heading of the Ministry's statistical table on "nutrition" has now been altered to "general condition." The classification of children inspected during the year, however, compares well with the figures of previous years.

An interesting comparison of the average heights and weights of a number of Bristol school children in 1947 as compared with 1910 is given on pages 33 and 34.

The return to more normal conditions has been reflected in the fall in the number of scabies cases arising during the year. The number of impetigo cases treated also shows a fall from 1,381 in 1946 to 1,043 in 1947 (page 7).

During the year arrangements were made with the city hospitals whereby the names of children seen at the Aural Clinics and found to require hospital treatment are put direct on to the waiting list at the hospital, and thus further attendance at the out-patients department of the hospital has been avoided (page 9). A review of the tonsils and adenoids problem in Bristol between 1922 and 1938 has been prepared by Dr. Smallwood and appears on page 30.

Mr. Stride, the Senior Dental Officer, in his report (page 12) mentions that the percentage of children accepting treatment has now risen to 74.7%. It is gratifying to note the appreciative attitude shown by parents in these days to the treatment given to their children, a point which Dr. Faill also mentions in his report (page 16).

In October acute rheumatism was made compulsorily notifiable in Bristol. This is part of an investigation being conducted into the incidence of this disease and Bristol is one of five experimental areas chosen for this purpose. (Professor C. Bruce Perry's cardio-rheumatic report, page 14).

During the year the Authority's Residential School for Educationally Sub-normal Girls was removed from Eastcourt House, Malmesbury, Wiltshire, to Croydon Hall, Nr. Washford, Somerset. The Day School for Deaf Children was also transferred to new premises at Elmfield House, Westbury-on-Trym, Bristol. This will give additional accommodation for children which will enable provision to be made for a nursery class. The need for additional special school accommodation, both day and residential, is, however, emphasized both by Dr. Barbour and Dr. Bell in their reports (pages 10 and 20).

In order to provide for the welfare of children leaving the Authority's Special Schools for Educationally Sub-normal Children, a scheme was put into operation during the year whereby a conference of all concerned is held in the early part of the term in which the child is due to leave school. A representative of the Juvenile Employment Department of the Ministry of Labour is also present at this conference to discuss with the parent the choice of suitable employment (page 21).

The number of diphtheria cases arising during the year reached a new low level of 22 cases with no deaths. There has been a continued fall in the number of diphtheria cases each year over the past 7 years and this reflects the results of the campaign for immunisation against this disease. Bristol was more fortunate than other areas in escaping the full force of the polio-myelitis epidemic in 1947, there being only four cases amongst children of school age with no deaths.

The Chief Organiser of Physical Education contributes an interesting report on modern developments in physical education (page 25).

During the year, on the suggestion of the Ministry of Education, a survey of spastic children in Bristol was made by Dr. A. L. Smallwood, who gives his report on page 28.

The provisions of the Education Act, 1944, relating to hospital treatment of school children and provision of spectacles, appliances, etc., instituted in 1946, were continued throughout the year. The close co-ordination between the School Health Service and all branches of the Public Health Service has been continued.

I should like once more to express my appreciation and thanks to Mr. Sylvester, Chief Education Officer and his staff, and to the teachers of Bristol, for their continued help and co-operation during the year.

R. H. PARRY.

STAFF.

The following staff changes have taken place during the year :—

Medical.

Dr. A. I. Ross and Dr. J. Hutton terminated their appointments as Assistant School Medical Officer and Assistant Medical Officer of Health in February, 1947, on their appointments as Chief Assistant Medical Officer for Maternity and Child Welfare and Chief Assistant Medical Officer of Health respectively. Dr. A. L. Smallwood commenced duty as Chief Assistant School Medical Officer on 10th April, 1947.

The following appointments as Assistant School Medical Officers and Assistant Medical Officers of Health were made during the year :—Dr. Marjorie Organ, 17th February, 1947 ; Dr. A. A. K. Datta, 1st March, 1947 ; Dr. F. C. Osgood, 14th April, 1947 ; Dr. W. L. Walker, 15th August, 1947. Dr. A. M. Fraser returned to duty after service with the Forces on 16th October, 1947. Dr. Marjorie Organ resigned her appointment on 30th April, 1947.

Consultants.

Mr. H. Chitty resigned his appointment as Senior Orthopaedic Consultant on 7th February, 1947, on his retirement from active surgical work. Mr. A. L. Eyre Brook and Mr. D. M. Jones were appointed as Orthopaedic Consultants on 11th January, 1947 and 7th March, 1948, respectively.

Miss Irene D. Gregory was appointed as part-time ophthalmologist on 1st September, 1947.

Child Guidance.

Mrs. L. K. Sambrook was appointed from 1st October, 1947, as psychiatric social worker at the Child Guidance Clinic, to fill the existing vacancy.

Dental Surgeons.

Mr. J. D. Rees resigned his appointment as Assistant Dental Surgeon on 13th December, 1947.

MEDICAL INSPECTION.

A complete medical inspection was made during the year of 17,577 children attending the Committee's primary and secondary schools. The yearly examination of pupils attending the Secondary Grammar Schools was continued, though it is proposed to modify these arrangements next year. The tables relating to these examinations will be found in the statistical section at the end of this report.

Nurses Inspections.

The number of sessions in schools given by the nursing staff to the nurses' survey was 1,586, the number of children surveyed being 58,991. Particulars of the results of the survey appear in the statistical section at the end of this report.

Uncleanliness.

The number of visits to schools made by the nurses during the year for the purpose of examining children was 2,497 compared with 2,420 in 1946, 169,125 examinations (including 3,180 re-examinations) having been made. The number of individual children found with verminous conditions during the year was 4,320.

The treatment and cleansing of children found to have varying degrees of verminous conditions or infestation was carried out in all the clinics during the year, 1,740 individual children being treated and 7,848 attendances being made. The great majority of cases were not severe and quickly cleared up after treatment. A number of the badly infested children had to be excluded from school for short periods, though this was avoided as far as possible except where there was a danger to other children, as it was felt that in this way the cases were kept under control and treatment could quickly and conveniently be given.

The use of a D.D.T. emulsion which was commenced in 1946 has been adopted as the standard treatment and used throughout the year. The Clinic Sisters report that this treatment has proved to be quite successful. Experiments are, however, still being continued with a view to determining the most effective form of treatment. There is some evidence that with the return of more normal conditions in the homes and with fewer mothers at work more efforts are now being made by the mothers to ensure the cleanliness of their children's heads, though there are still a number of "problem families" where the children are constantly found to be in need of attention.

Co-operation between nurses and heads of schools is very close and the valuable assistance given by teachers and child welfare officers is greatly appreciated.

Home Visiting.

During the year the number of visits for the purpose of "following up" defects, etc., was 3,172. Other visits in regard to uncleanness, etc., totalled 2,093.

TREATMENT.

The total number of attendances at the clinics during the year was 239,608.

Skin Clinics.

Scalp Ringworm.

70 Cases of scalp ringworm were dealt with during the year, and all were treated at the Committee's clinics, 11 by X-Ray—59 otherwise.

The cases treated by X-Rays in 1947 and the two preceding years are as follows :—

	1945	1946	1947
Primary and Secondary Schools ..	19	3	5
Nursery Schools	1	7	6
Total ..	20	10	11

X-Ray Treatment of Ringworm.

Dr. F. Gower Bergin, M.R.C.S., L.R.C.P., who is in charge of this department reports as follows —

"To all intents and purposes ringworm of the scalp has been abolished from the schools in Bristol. Before epilation by means of X-rays was adopted there was an average of 500 school children per year who were infected. To-day there are practically none, the total for the year being 11. This is certainly a vindication of the extreme efficacy of X-ray treatment. Most of the cases which are treated from time to time are from the surrounding counties and districts. We have every reason to be satisfied with X-ray treatment of tinea capitis."

Body Ringworm.

During 1947, 256 cases of this disease amongst school children were treated at the school clinics. This compares with 234 cases in 1946 and 263 in 1945.

Impetigo.

The school clinics treated 1,043 cases of impetigo during the year.

Scabies.

The following table shows the number of scabies cases treated in 1947 and the three preceding years.

Year	School Cases	Cases under school age	Adults	
			Women	Men
1944	2,321	702	1,846	679
1945	1,520	555	1,354	537
1946	1,312	460	1,103	747
1947	789	305	621	420

The return to more normal conditions has been reflected in the considerable fall in the number of scabies cases dealt with during the year. Towards the end of the year the numbers were down almost to pre-war proportions. The standard treatment with Benzyl Benzoate emulsion or Sulphur cream in the case of very young children was continued throughout the year and the disinfection of the patients' personal clothing and bedding has been carried out as before.

Eye Clinics.

Mr. R. R. Garden, M.B., Ch.B., D.O.M.S., D.P.H., the Committee's Ophthalmic Surgeon, reports as follows:—

"During 1947 a total of 4,224 school refraction cases attended the clinics, including 4,186 from Primary and Secondary, 27 from Nursery schools and 11 from Special Schools. Spectacles were not prescribed for 762 of the new cases, but a number of these children will attend for periodical observation. This group includes children with congenital anomalies, transient squints, those with recurring lid and conjunctival inflammation who might also have errors of refraction, and miscellaneous cases whose visual acuity appeared to be below normal at medical inspections.

Altogether 1,852 pairs of spectacles were supplied by the appointed opticians, for school children examined through the Committee's scheme, and 3 by other opticians. In 6 cases the parents made their own arrangements for the examination and purchase of glasses.

The number of sessions given to refraction work during the year was 649.

The number of attendances at Clinics for the treatment of external eye diseases during 1947 was 5,144.

New squint cases numbering 229 and 874 from previous sessions (kept under observation or treatment), attended during the year. Of the new patients 130 were referred by the Maternity and Child Welfare Department and 9 attended from Nursery schools.

Orthoptic treatment at the Bristol Eye Hospital was again in charge of a whole-time Orthoptist, and the following table gives the figures for 1947:

Total number of cases examined for the first time	..	..	23
Total number of cases receiving treatment during the year	..	..	31
Number improved	..	..	26
Number receiving treatment twice weekly at the end of the year	..	..	23
Total number of attendances during the year	..	..	279

A total of 82 operations for the correction of squint took place during the year at Bristol Eye Hospital and in connection with these the orthoptic department carried out a considerable amount of pre- and post-operative work.

It will be recalled that the present orthoptic scheme was the result of an arrangement whereby the Bristol Eye Hospital staffed and equipped the hospital clinic and the Education Committee agreed to send there all suitable cases for treatment. The work of the hospital in this field has grown very much in recent years, however, and the department cannot really cope with all the demands made on it without in some cases considerable delay. I therefore suggest, that except for immediate pre- and post-operative work, the time has now come to consider whether orthoptic training should be carried out at a separate centre, e.g., the Central Health Clinic, by an Orthoptist employed by and responsible to the Education Committee. This would also relieve the ophthalmic assistants of the School Medical Service from a considerable amount of routine work in the supervision and treatment of children with amblyopic eyes, besides enabling them to keep in closer contact with cases which they had referred to the Orthoptist for treatment."

Provision of Spectacles.

Glasses were supplied at contract prices through opticians appointed by the Committee. Particulars of numbers of spectacles supplied are given below:—

Spectacles obtained through school contract arrangements	..	1,356
Purchased by parents through school opticians	..	496
Purchased privately	..	9
		1,861

The adoption by the Education Committee in 1946 of contract spectacles of improved appearance, durability and shape, which under the Education Act 1944 have been supplied free of charge to parents, has resulted in a considerable increase in the number of spectacles supplied through the school contract arrangements; 1,356 pairs being supplied in this way as compared with 454 pairs in 1946.

Defects of Nose and Throat.

The number of children found suffering from the above ailments was 3,123 of whom 374 (including 10 Nursery School children) received non-operative treatment at the Committee's clinics. Operative treatment for enlarged tonsils and adenoids at the various Bristol hospitals was given in 1,186 cases.

Aural Clinics.

Mr. Gordon R. Scarff, F.R.C.S. (E), the Aural Surgeon, reports as follows :—

"During the past year, the number of children suffering from aural defects attending the clinic was 254 (including 28 pre-school cases and 11 Nursery School cases) of whom 144 were suffering from middle ear suppuration.

The treatment of middle ear suppuration is being carried out on the same lines as before—that is, dry cleansing of the ear followed by the insufflation of iodised boracic powder. 27 of the more chronic cases have been treated weekly by ionisation. In 7 cases the discharge has cleared up.

The past year has shown an important advance by the unification of the ear, nose and throat work of the hospitals with that of the City Health Services, including the School Health Service.

By this arrangement the cases will be seen by the surgeons at the school clinics, and those requiring hospital treatment will be put on the waiting list of the surgeon by whom they are seen. These cases will be admitted direct to hospital (the parent's preference for a particular hospital being taken into consideration) and thus attendance at the hospital out-patient department will be unnecessary. This will still mean a wait of some weeks before the child is admitted, as there is a considerable waiting list at all the hospitals owing to the epidemic of anterior poliomyelitis in the late summer and autumn, when operative treatment was restricted to urgent cases with a consequent accumulation of cases on the waiting lists. This accumulation can only be slowly worked off, and as there were only 31 proved cases of poliomyelitis in the City, of which only four were children, out of 91 notified, it is open to question whether such a restriction would again be advisable in the event of a similar epidemic in the future.

The year has also seen the transfer of the deaf children to more commodious premises acquired at Westbury, on the outskirts of the City. Here there will be accommodation for 50 children and it will be possible to take deaf children of the 3—5 age groups. There is, however, not sufficient accommodation to include the partially deaf children who require special methods of instruction, and it is hoped to provide room for them in one of the ordinary schools where they will have the necessary special instruction but will be able to mix with normal hearing children for some subjects.

Owing to the improved treatment of aural suppuration and its causal conditions however, these cases are much less numerous than in former years, as prolonged suppurative otitis media is the most common cause of partial deafness in a child. This is well shown by comparing the year's figures with my report of 20 years ago, when 625 new cases of middle ear suppuration were found at routine and special medical inspections, but 1,020 cases attended for treatment during the year—that is 395 were old chronic cases.

During the past year 498 new cases were found at medical inspections. These were treated by the usual routine treatment. Cases which persisted for more than 2 weeks—144—were referred to the aural clinic where treatment was continued in the same way or by zinc ionisation, and the removal of septic foci advised if present. Only 29 cases were still attending for treatment at the end of the year. Thus although there is no very significant diminution in the incidence of acute middle ear suppuration, the prognosis with regard to hearing damage shows very marked improvement.

There were 583 children, including 53 nursery school children and 48 infants from the maternity and child welfare department, referred for diagnosis of nose and throat conditions and these show a very definite increase in the number of cases of sinusitis and allergic rhinitis. The strain of the war years offers itself as an explanation of this increase, but it would be interesting to know whether this increase has been equally noticeable in cities where life during the war was more normal."

Child Guidance Clinic.

Dr. R. F. Barbour, M.A., F.R.C.P., D.P.M., the Director, reports :—

"The return to post-war Child Guidance after a 6 years' absence in the Forces, prompts the following reflections. Parent guidance is more important than ever before. One is seeing only too frequently the tired, irritable, queuing mother, who has little time or

energy for her own family, and yet more time spent with them would, in the long run, lessen her work, as a genuinely affectionate mother is the best antidote for the dawdling, careless, time-consuming child. The present industrial policy of tempting women away from their homes into part or full time work, is storing up trouble for their families, especially when this policy is combined with one of shutting down nursery classes. The basis of character is laid in the first 5 years and no substitute for a normal home with affectionate and understanding parents, and with brothers and sisters, has yet been found.

One cannot also help regarding it as unfortunate, that whilst such advances have been made in understanding the problems of the backward child, yet many recommendations are, in fact, so much waste paper, as the accommodation and teachers for small specialised classes are not available.

Another shortage, is that of "alternative homes". Before the war foster homes were fairly easily found, but experience with evacuees, the housing shortage and post war economics, have made it next to impossible to find satisfactory homes, while waiting lists for residential schools are so long that many cases reach the magistrates, and juvenile courts before a vacancy can be obtained. Despite these difficulties, however, the work goes on.

Although certain broad groups of maladjusted children may be distinguished yet each child is an individual with his own particular abilities and disabilities. Some come from problem families: an example of such children is A. J., aged 14½, a boy referred by the Court on account of stealing a fountain pen. His mother died when he was aged 4. Two years previously she had separated from her alcoholic husband. Two brothers have been convicted for theft while a sister is at present 'wanted' by the police. This boy has been in a residential home for 9 years. He was then taken home but did not settle down with his other brothers and sisters. He is dull and goes to a special school. With this background, little can be expected as long as A.J. remains in his home, so that placement elsewhere is essential.

One hears much of the problems created by fathers joining the forces, but equally there are problems due to their return home.

R. M. an 11-year-old was referred on account of stealing. He took money from home; pencils and foreign stamps from school. He is of normal intelligence. On taking the history, three things stood out. The problem started shortly after father was demobilised; he has no regular pocket money: (the money he takes he spends on himself). The parents, however, stressed how much they had spent on him in the way of buying expensive toys and books. Further enquiries showed that when father was in the services, R. was kept very close by mother. He slept with her and they did everything together, but on father's return he was ejected; had to sleep in a room by himself and mother found little time for him. Left to himself, he tried to compensate for his loneliness by increasing his material possessions.

J.L., aged 8½—a boy—was referred on account of being "afraid to go into a room alone; afraid of other children at school." The middle of 3 children, he has a superior intelligence. The problem dates from the arrival of the next child, a girl, who was born with a paralysed arm, whom the mother had to visit daily in hospital to feed. At that time, J. cried 'morning and evening.'

He was taken on for play therapy. At first the play showed his fears. He was afraid of 'nasty men' in the room. As he gained confidence, he began to talk about his fears, but could only deal with them indirectly, making a wind 'which blew the wires down and left the people in the dark' (this was another of his fears). He was, by now, able to be aggressive with a punch-ball. As confidence increased, he was able to act more realistically towards his fears; they ceased troubling him, and with anxiety gone, he was able to make friends at school and to join and take full part in the Life Boys and enjoy it.

M.K., aged 13—a girl—was referred as being difficult and for wetting the bed. Her defiance occurred chiefly at home and at school. Other friends and relations found her quite amenable. She was an only child and the mother had a break-down when feeding her as an infant. She was slightly handicapped at school as she was basically left-handed, but had been trained to write right-handed.

The difficult behaviour and the bed-wetting were found to be the result of emotional clashes in the home. She played with small dolls who always had large families. Her sense of resentment at having no brothers or sisters was clearly shown. She also dramatised her own conflicts with her mother. Alternatively, she played with water scenes (her problem is connected with water); with divers and crocodiles who had to go into the water before they could get treasure. The play was interpreted to her and her behaviour improved. In fact, according to her mother, she 'became quite likeable.' The enuresis continued more as a habit and more direct approach, using a star chart to emphasise the dry nights was used and when last seen she had been dry for over 6 weeks.

ANALYSIS OF 403 CASES REGISTERED DURING 1947

Behaviour Disorders.

1. Unmanageable	59
2. Temper	17
3. Aggressiveness	5
4. Jealous behaviour	4
5. Demanding behaviour	2
6. Stealing	78
7. Lying and romancing	1
8. Truancy	26
9. Sex difficulty	22
—	214

Habit disorders and Physical symptoms.

1. Speech disorders	13
2. Sleep disorders	8
3. Movement disorders	8
4. Feeding disorders	1
5. Excretory disorders	54
6. Nervous pains and paralyses	1
7. Fits	5
8. Physical disorders	4
—	94

Educational and Vocational difficulties.

1. Backwardness	31
2. Inability to concentrate	4
3. Inability to keep jobs	—
4. Special disabilities	—
—	35

For Special Examination.

1. Psychological examination	12
2. Educational advice	2
3. Vocational advice	3
4. Admission to Special Homes, Schools and Hostels	5
5. Placement in Foster Homes	5
6. Adoption	1
—	28

Nervous disorders.

1. Fears	11
2. Seclusiveness	4
3. Depression	5
4. Excitability	2
5. Apathy	3
6. Obsessions	—
—	25

Psychotic behaviour.

5 5

Unclassified.

2 2

Total
403

DEPARTMENTAL WORK

	<i>Psychiatric</i>	<i>Psychological</i>	<i>Social</i>
Examinations	328	319	—
Physical examinations	319	—	—
Re-examinations	60	19	—
Treatment—children	828	258	87
—Parents	103	80	972
Others	59	27	72
School visits	—	13	11
Home visits	—	5	180
Other visits	12	1	18

CASES REFERRED DURING 1947

Education department ..	173
Juvenile Court	208
Parents	60
Hospital	16
Other agencies	15
G.P.'s	20
	525

CASES CLOSED DURING 1947

Consultation Reported ..	297
Supervision satisfactory ..	13
Supervision unsatisfactory ..	4
Treatment improved	61
Treatment unchanged	16
Treatment withdrawn	8
	399

Dental Clinics.

Mr. W. H. B. Stride, L.D.S., Senior Dental Officer, reports as follows :—

“ The dental staff was maintained at its full strength of ten until December, when Mr. Rees resigned to go into private practice. An appointment will be made early in the new year.

We are able to record an increase in the numbers inspected during the year, namely, 43,814 (40,788) and in the numbers treated, 24,243 (22,795). Fourteen more sessions were given to Maternity and Child Welfare work than last year and 1,500 expectant mothers were inspected and treated (this is out of approximately 6,000 in the city).

Particulars of cases and attendances of mothers and young children during the year are as follows :—

	Mothers		Pre-School Children
	Ante-natal	Post-natal	
New cases	1,499	127	1,075
Attendances	3,627	352	1,986

418 sessions were occupied in this work.

In addition, at least five sessions a week are devoted to the treatment of hospital and institution cases and, in view of our commitments in July under the new Health Act, it is expected that the equivalent of two full-time officers will now be needed for this side of the work.

The school population has risen to 48,870 and will be the responsibility of the remaining staff, which will mean that each dentist will be nominally responsible for approximately 6,100 children ; this being 1,100 above the maximum number advised by the Ministry.

Already it is being found impossible to be certain of visiting every school within the year, and it is urgently necessary to add to the staff as soon as extra dental rooms can be provided so that the work shall not fall behind.

The consent rate for treatment is now 74.7% and most parents are very anxious to take full advantage of the treatment offered at the clinics. Parents are now given the opportunity of attending the first dental inspection of their children. When we remember the prejudice that used to exist in the minds of many people not so many years ago, their reason being that they were afraid the standard of treatment was very different from that given in private practice, and compare it with the attitude of keen appreciation shown to-day it is felt to be even more important that we should not fail in our duty of providing adequate facilities for treatment. The children, on the whole, attend happily and willingly and often attend regularly by themselves for fillings ; that part of the work which was formerly the bug-bear of dentistry and used to be so much dreaded, is now accepted by many of the children as a part of school routine. When parents have difficulty in attending, children even come by themselves and demand an extraction.

Very large numbers of parents are seeking advice and treatment of irregularities of the teeth and there is a formidable waiting list. Some of the children have been waiting over two years to receive orthodontic treatment and parents are very concerned over this delay which has been unavoidable.

In the table of dental work it will be seen that the number of ‘ other operations, temporary ’ has more than doubled, and this is explained by the large number of temporary teeth which have been treated with silver nitrate because of the need of their retention as long as possible for orthodontic reasons.”

A comparison is given below with the work done in 1939 :—

	1939	1947
Number of children inspected ..	38,323	42,350
Number of children treated ..	20,094	24,562
Number of sessions devoted to school treatment	3,928	4,037
Number of sessions devoted to M&CW treatment	325	418

During the year the University of Bristol established a Department of Children's Dentistry at the Bristol Dental Hospital to provide systematic instruction for dental students in children's dentistry, post graduate instruction in this subject and research on the problems of dental disease in children. In order to provide sufficient child patients for this Department, the University asked the Bristol Education Committee if they could be allowed to undertake the dental inspection and treatment of about 1,000 school children of all age groups. This proposal and the financial terms were approved and the arrangements commenced in October, 1947. The treatment is given by the qualified staff of the Hospital or by senior students under their direct supervision and 39 children were treated at the Hospital under these arrangements in 1947.

Orthodontic Treatment.

Mr. Trevor Johnson, L.D.S., reports :—

"The arrangements for orthodontic inspection and treatment at the Central and Southmead Health Centres were continued throughout the year. The number of cases referred by the School Dental Officers increased to 383 in 1947 as compared with 251 in 1946, with a corresponding increase in the attendances. At the treatment sessions which were introduced at Central and Southmead Health Clinics a number of removable appliances were made, and many of the difficult cases requiring treatment by fixed appliances were undertaken. Owing, however, to the fact that no satisfactory arrangements existed for the treatment of the more severe types of case, discussions were held towards the end of the year with the Bristol Dental Hospital on a proposal that the Hospital should undertake the orthodontic treatment of all school cases. The arrangements, however, were not concluded in 1947."

Attendances at the Orthodontic sessions during the year were as follows :—

1946		1947
351	New Cases	383
197	Number referred for treatment at Dental Hospital	41
154	Number referred for treatment at the Committee's clinics	230
165	X-Rays taken	248
484	Impressions taken	448
1,133	Total attendances	1,601

Orthopaedic and Postural Defects.

Mr. A. L. Eyre-Brook, M.S., F.R.C.S., reports as follows :—

"The epidemic of Anterior Poliomyelitis was fortunately not severe in Bristol and has left but a very small toll of paralysis in its wake.

The most striking improvement in recent years is the virtual disappearance of new cases of resistant osteomyelitis with their all too regular attendances at the Orthopaedic Clinics on account of discharging sinuses and periodic 'flare-ups.' These cases are now cured in the initial attack with penicillin and relatively minor surgery.

A comparatively small but important problem has been solved in the last year through the help of Mr. Daniel Gilbert of Rock Road, Keynsham. The provision of odd shoes for the innumerable children with feet of different sizes from congenital, paralytic or other causes, has never been effectively tackled. By carrying stocks of odd shoes, Mr. Gilbert has helped many parents who in the past have always had to spend double in coupons and cash on each occasion that shoes have had to be renewed. This 'Odd Shoe' Service will certainly grow as it becomes better known."

The following Table shows the various ailments found amongst the patients seen during the year :—

	Age 5 yrs. and over	Age under five years.
Paralysis (a) Flaccid	51	6
(b) Spastic	55	18
Tuberculosis of Bones and Joints	17	—
Congenital abnormalities of Bones and Joints ..	44	27
Amputations	9	1
Rickets	1	2
Genu Valgum	73	73
Various (flat foot, spinal curvature, etc.)	806	179
	<u>1,056</u>	<u>306</u>

In addition to the above, 720 re-examinations were made during the twelve months.

Chiropody Clinic.

Mr. L. Tasker, the Committee's Chiropodist reports :—

“ There was a slight reduction in the number of attendances in 1947—the figures being 2,939 treatments (675 new cases) against 3,093 (783 new cases) in 1946.

Of the new cases 559 were from Primary Schools, 105 from Modern Secondary and Grammar Schools, and 11 from the M. & C.W. Dept.

Plantar Warts were again very numerous with 509 new cases, this being an increase of 34 over the previous year.

Until more is known about the origin of these lesions it is difficult to suggest any preventive measures which can be taken. While swimming baths are generally regarded as a probable source of infection there are always a few cases where, for some reason, the child is not allowed to visit the baths yet has somehow acquired plantar warts.

There are at least two other possibilities which might be considered and these are barefoot dancing and the wearing of school shoes for P.T. or other activities.

Many parents complain of the difficulty in getting correct shoes and certain of the larger sizes are practically impossible to obtain. The tendency to hammer toe and hallux valgus found at such early ages can almost certainly be attributed to this shortage in supplies.

During the year some 25 cases were referred to the Orthopaedic Department for operation or physio-therapy.”

The following is a summary of treatments :—

	Primary		Secondary & Grammar	
	1st	Other	1st	Other
Hammer toes	17	56	5	13
Metatarsalgia	3	7	2	1
Plantar Warts	433	1,695	76	301
Pes Cavus	4	3	1	1
Foot Strain	18	35	6	14
Hallux Valgus & Rigidus	16	16	4	1
Miscellaneous	68	89	11	22
	<u>559</u>	<u>1,901</u>	<u>105</u>	<u>353</u>

Cardio-Rheumatic Clinic.

Professor C. Bruce Perry, M.D., Ch.B., F.R.C.P. reports :—

“ The work of the Clinic has continued normally during the past year, the total number of examinations increasing by just over a hundred. In October acute rheumatism was made a notifiable disease in Bristol. This has greatly increased the amount of work, both administrative and clinical, as every notified case has to be examined clinically, hospital accommodation found when necessary, and certain environmental investigations made. This scheme is part of a national effort to determine the incidence of the disease and Bristol is one of five experimental areas chosen in which the disease has been made notifiable for a period of 5 years. The result of the notification is that cases come under observation earlier in the course of the disease and we are able to do more for them. In addition, however, it puts a larger strain on hospital accommodation and at the moment there are not enough beds available at Winford to deal adequately with the problem.

**Summary of cases attending CARDIO-RHEUMATIC CLINIC, 1947, including Primary, Secondary,
Grammar and Nursery Schools.**

	No treatment or restriction	No treatment but restriction of games, etc.	Treatment and school	Treatment and exclude from school	Institutional treatment	TOTAL
NEW CASES.						
Rheumatic Heart Disease..	18	4	—	3	27	52
Chorea	4	—	—	—	7	11
No Organic Disease ..	131	—	—	—	—	131
Congenital Heart Disease..	18	1	—	—	—	19
Various	5	—	—	2	—	7
	176	5	—	5	34	220
RE-EXAMINATIONS.						
Rheumatic Heart Disease..	273	60	2	7	8	350
Chorea	44	—	—	1	—	45
No Organic Disease ..	286	—	—	1	—	287
Congenital Heart Disease..	77	14	4	4	—	99
Various	93	1	—	5	—	97
	773	75	6	16	8	878

No. of Individual children examined	..	..	..	..	578
No. of New cases for 1947	..	..	..	..	220
No. of Re-examinations ..	..	..	..	..	878
TOTAL NUMBER OF ATTENDANCES	..	..	..	..	1,098

The Clinic has continued to provide valuable teaching and research material. A study of 'growing pains,' their incidence and importance, is at present in hand. The final results of the experiment on the prevention of rheumatic relapses mentioned last year is still not available, but it is clear that the results are disappointing.

It is noteworthy that the incidence of acute rheumatism still shows signs of increasing. Cases of active disease needing hospital treatment numbered 42 this year as opposed to 30 in 1946. This is a warning that although the incidence and severity of the disease has decreased considerably in the last twenty years we cannot afford to become in any way complacent over the disease and its problems."

An investigation on the "Significance of Harrison's Grooves" was made by Dr. Naish of the Bristol Royal Hospital and Dr. Wallis of the Bristol Children's Hospital during the year and the department was able to assist in providing facilities for the examination of about 500 children during routine school medical inspection, and children from the cardio-rheumatic clinic were also seen.

[J. NAISH and H. R. E. WALLIS, 1948, *The Significance of Harrison's Grooves*, B.M.J. ; I, 541.]

Asthma Clinic.

Dr. R. J. Irving Bell, M.R.C.S., L.R.C.P., D.P.H., who is in charge of this Clinic reports :—

"Children referred by members of the school medical staff on account of asthma continue to be seen on Wednesday afternoons at the Central Health Clinic. A routine enquiry into the history of the asthmatic tendency with full clinical examination is carried out and treatment given depending on the type of asthma encountered. Organic abnormalities initiating the attacks are looked for and these are referred to the specialist department concerned for special treatment.

The practice of routine skin testing in every case for sensitivity to foreign proteins has been discontinued ; degrees of allergy alter considerably in the same child in the course of a few weeks. Diagnosis was thus found to be uncertain and misleading. Children with seasonal hay fever attacks are treated with anti-allergic compounds in place of desensitising injections.

A fair number of children with long standing asthma have been referred to Miss Wilson, the Speech Therapist, for breathing and relaxation therapy, the majority benefiting considerably. This treatment often succeeds when drug and other forms of therapy fail. Relaxation therapy is also of great value in the treatment of stammering."

Chest Clinic.

Dr. C. J. Campbell Faill, F.R.C.P.(E.), who is in charge of the Chest Clinic reports as follows :—

"During the year 937 child patients were examined, of whom 531 were new and 406 old. Of the former 30 were classified as definite pulmonary tuberculosis, 26 non-pulmonary and 475 as non-tubercular.

This number of children examined is far short of what one would like, but it has been a physical impossibility to undertake more. The whole 406 children who were re-examined, are contacts of definite cases of pulmonary tuberculosis, who are being kept under observation. The majority of the 531 new cases are also contacts but there are also some picked out as doubtful at routine School Medical examinations. These children, in addition to a physical examination, have an X-ray and a tuberculin skin test. Although no actual figures are available, the impression is that, as the years go on, there is found a steadily increasing number of children who are known to be 'at risk' who give a NEGATIVE reaction to the skin tuberculin test. This is all to the good, but what will happen later when they grow up into the 15—25 group is quite another matter. If an increasing number of individuals reach that dangerous age group, still remaining NEGATIVE reactors, we can expect a steady increase in the number of acute young adult cases of pulmonary tuberculosis. The only solution would seem to be B.C.G. vaccination of negative reactors 'at risk' of school age and younger.

One other quite general observation—a generation ago, when a mother was advised to do this or that with one of her children, she was apt to resent it, and frequently made no effort to carry it out. The attitude of the present generation of young mothers is quite different. They come to clinics virtually saying 'Tell me what I ought to do and I'll do it.' This, I presume, is the result of education, and a growing appreciation of the clinic facilities now available."

Mass Radiography.

Dr. E. E. Mawson, M.D., Ch.B. reports —

“ During the year 1,362 children were X-rayed through the mass radiography scheme. This is considerably below the number seen last year and is due to the fact that owing to the raising of the school leaving age from 14 to 15 years, the number of children leaving school during the year was much reduced. Details of the cases are given below.”

Summary	Boys	Girls	Total
Miniature Films	746	616	1,362
Recalled for Large Films	33	14	47
Normal Large Films	22	9	31
Significant Cases	11	5	16
	(1.47% of Miniature Films taken.)	0.81%	1.16%

Analysis of Significant Cases,				Disposal			
	Boys	Girls	Total	N.A.	Dr.	Disp.	San.
Abnormality Bony Thorax ..	1	1	2	1	1	—	—
Bronchiectasis	1	1	2	—	1	—	1
Pleural Thickening	2	—	2	2	—	—	—
Pulmonary Tuberculosis :							
Active	1	1	2	—	—	2	—
Inactive	4	2	6	1	1	4	—
Pleural Effusion	2	—	2	—	—	1	1
	11	5	16	4	3	7	2

N.A.—No action necessary.

Dr.—Cases referred to patient's own Dr.

Disp.—Cases under observation.

San.—Recommended for Sanatorium treatment.

Artificial Sunlight Clinic.

During 1947 410 children of school age and 55 children at nursery schools were given a complete course of artificial sunlight treatment. Full details of the cases are given below :—

Defect	Primary and Secondary Schools			Nursery Schools		
	No. Treated	Improved	Stationary	No. Treated	Improved	Stationary
General Debility	147	104	43	17	11	6
Bronchitis	28	19	9	3	2	1
Coughs, etc.	9	6	3	1	—	1
Enlarged glands	35	21	14	1	1	—
Malnutrition	32	21	11	9	6	3
Other defects	159	115	44	24	17	7
	410	286	124	55	37	18

Speech Clinics.

Northern Area.

Miss D. Wilson, F.C.S.T., reports :—

“ The Speech Clinic for the Northern Area completed its second year at 1 Argyle Road. Since May, only six sessions per week have been given, five sessions with the children and one writing session.

The cases under treatment and the attendances for the year were as follows :

	<i>Cases</i>		<i>Attendances</i>
	<i>New</i>	<i>Old</i>	
Stammerers	10	11	364
Speech Defects	5	9	149
Asthmas	24	30	860
Asthma and Stammer ..	3	—	51
Stammer and Speech Defect	1	10	54
Total	43	60	1,478

The following results have been gained :

Discharged—

Asthmas	10
Asthma & Stammer	1
Stammer & Speech defect	7
Stammer	4
	—
	22

Transferred to Special Schools or other clinics—

Asthma	1
Stammer	1
Stammer & Speech defect	1
Speech Defect	3
	—
	6

Discontinued attendance—

Asthma	12
Stammer	3
Speech Defect	3
	—
	18

Attending :

Asthma	18
Asthma & Stammer	2
Stammer	10
Stammer & Speech defect	2
Speech Defect	5
	—
	37

Monthly Supervision—

Asthma	12
Asthma & Stammer	1
Stammer	3
Stammer & Speech defect	1
Speech Defect	3
	—
	20

Total	103
---------------	-----

The 54 cases of Asthma, 3 of Asthma and Stammer, and 21 cases of Stammer were all found to be of normal intelligence and many of high intelligence. Eleven cases of Asthma and 4 of Stammer have been discharged not needing further help. Thirteen Asthmas and 3 Stammerers attend only monthly. All these children have shown great improvement in school attendance and school work, as well as in self-confidence and stability. After attending the Clinic for a year they are ready for monthly supervision.

The 7 cases of Speech Defect and Stammer which have been discharged had attended the Clinic from 2—4 years before gaining good speech.

Of the 14 cases of Speech Defect attending during 1947, 5 were found to be educationally sub-normal and 5 had an I.Q. below 80. Only 4 were of normal intelligence, but 3 had not normal hearing and have not yet been discharged.

The number of children on the waiting list is 64. Many of these are cases of speech defect in children of sub-normal intelligence. These children are urgently needing help but cannot be dealt with until there is more help at the Speech Clinic."

Southern Area.

Miss W. Cooke, M.S.S.T. reports :—

“ The number of cases under treatment during the year, and attendances are as follows :—

	Cases.	Attendances.
Stammer	33	471
Speech Defects	76	951
Stammer and Speech defect	5	30
	114	1,452

Of the total number of 114 cases under treatment during 1947, 55 were discharged and 59 were still under treatment at the end of the year.

Of the former number, 27 were discharged relieved, 12 were suspended (pending further treatment), 10 ceased attendance, 2 left school or left district, 2 refused treatment and in 2 cases treatment was found to be unnecessary.

Of the 76 articulation defects the classification was as follows :—

<i>Universal Dyslalia—</i> (Where the majority of consonantal sounds are affected) ..	37
<i>Idioglossia—</i> (An extreme form of the above)	6
<i>Sigmatism or lisping—</i> (Partial dyslalia)	13
<i>Dysarthria--</i> (Due to lack of motor control, etc.)	3
<i>Rhinolalia aperta—</i> (Excessive nasality)	12
<i>Rhinolalia clausa—</i> (Diminished nasality)	1
<i>Hearing Mutism</i>	2
<i>Partial Deafness</i>	2
	76

Of the 43 cases of universal dyslalia, including idioglossia, 2 were of sub-normal intelligence and 2 had a partial tongue-tie. Dysphasic (reading, writing and speech) difficulties were present, in varying degrees, in 22 cases, including the 6 idioglossias, and in 12 cases a psychological element was mainly responsible for the speech defect. The remaining 9 cases were unclassified in the above respects.

Seven cases of sigmatism were proved to have a degree of high frequency deafness and the hearing of another was generally impaired.

The 3 cases of dysarthria were due to cerebral palsy, poliomyelitis and glossopathy respectively.

Excessive nasality was due to cleft palate in 9 cases, 7 of which had double clefts with harelip, 1 having a partial tongue-tie in addition.

In the remaining 3 cases, 1 was due to a congenital tumour of the hard palate (necessitating operative treatment), another to facial injuries at birth, and 1 to an inactive velum.

The one case of diminished nasality was post-adenoidal in origin.

One case of hearing mutism was of good intelligence but weak auditory perception, the other, a post-encephalo-myelitis case, was of sub-normal intelligence.

Of the 38 stammerers, 18 appeared to have varying degrees of spelling difficulty, including the 5 also suffering from dyslalia.

Dysphonia was present in a definite degree in 5 dyslalics and 3 stammerers.

School Reports.

Heads of schools were again invited to give their opinion as to progress of children undergoing speech treatment, and the following results were reported in 53 cases.

Improvement in Speech—

Marked	..	..	..	21
Moderate	..	..	..	12
Slight	..	..	..	17
Nil	..	..	..	3
				53

As is customary, improvement in self-confidence was noted in a majority of cases, and a number of children made marked progress in school work as a result.

General Remarks.

One of the main problems is to ensure the necessary daily practice, without which adequate or permanent results are difficult to obtain. The services of a teacher trained to deal with backwardness in children would be of inestimable value in connection with those cases of articulation defect where reading and writing problems are also present.

With reference to cleft palate cases it is gratifying to note that the value of expert plastic surgery is being increasingly recognised as indispensable.

Progress with cases of partial deafness is hindered through lack of educational facilities.

It is suggested that, in view of the fact that some degrees of hearing deficiency, including high frequency deafness, are almost imperceptible and therefore interfere with speech and school progress, group testing by audiometer should take place annually throughout the local schools, as in U.S.A. and under certain British Local Education Authorities.

In certain cases of stammering and articulation defects where a psychological element predominates, it is hoped that closer co-operation with the Child Guidance Clinic may be possible.

The services of pediatrician and neurologist are advisable where speechlessness persists after the age of three years.

Orthodontics would be of great assistance in certain cases of sigmatism and other articulation defects due to dental malformation.

It is suggested that children showing a marked degree of dysphonia for more than six weeks in succession should be examined by an otolaryngologist as a precautionary measure against T.B. infection, papilloma, etc."

Dr. R. J. Irving Bell, M.R.C.S., L.R.C.P., D.P.H., reports :—

"In view of the fact that there are only five working sessions at Miss Wilson's Speech Clinic and a great deal of this time is devoted to cases of asthma and stammering, very little time is left for dealing with speech defects. Children on the heavy waiting list of 64 cases of speech defect or stammer, are urgently needing help which cannot be given until an Assistant Speech Therapist is appointed. The good reports from the schools on the progress of children with asthma, stammer or speech defects show that help for dealing with the waiting list is amply justified.

Miss W. Cooke's Speech Clinics continue to deal with an ever increasing number of speech defects. Before speech training is undertaken children are examined by me at the Central Clinic to eliminate organic abnormalities contributing to or causing the defect. Audiograms are made for all children over six years of age suspected of high frequency or other forms of deafness."

SPECIAL SCHOOLS.**Schools for Educationally Sub-normal Children.**

Dr. R. J. Irving-Bell, M.R.C.S., L.R.C.P., D.P.H., reports :—

"The three Day Special Schools—Rose Green for Senior girls (100), Russell Town for Senior boys (100) and Newfoundland Road for Junior mixed (80), continue at full capacity, with a large number of children awaiting admission. Further accommodation for Day Special School tuition is still needed.

Residential Special Schools.

The Cedars, Purton, continued to labour under difficult domestic conditions, for the efficient care of 17 senior boys. It is hoped that the move to a new building situated near Ilchester will have been effected early in the New Year.

The Senior Girls school, Eastcourt House, Malmesbury, moved to Croydon Hall, Roadwater, near Watchet, Somerset, on 30th May, 1947.

Many E.S.N. children exist in unsatisfactory homes and have some element of mal-adjustment to their surroundings. There is an increasing need for residential provision for these cases, especially for boys who are more likely to offend against society and appear before the Juvenile Court. It would appear desirable also that steps should be taken more frequently to place such children in residential schools in spite of parental opposition.

The number of children on the registers at the end of the year is as follows :—

	<i>Boys</i>	<i>Girls</i>	<i>Total</i>
Russell Town Day Special School, Bristol	104	—	104
Rose Green Day Special School, Bristol	—	102	102
Newfoundland Road Day Special School, Bristol ..	58	23	81
Croydon Hall Residential school, Watchet	7	28	35
The Cedars Residential School, Purton	16	—	16

In the early part of the term in which children are due to leave the special schools for educationally sub-normal children a conference is held attended by the School Medical Officer, the Ascertainment Medical Officer, the Authority's Psychologist, the Supervising Officer of the M.D. Acts Committee, the Head of the School, representatives of the Ministry of Labour (Juvenile Employment Bureau) and of the Social Welfare Department where necessary. In future the Children's Officer will also be represented. The children have previously been seen by the Psychologist and the Ascertainment Medical Officer. The parent is invited to attend with the child and the purpose of the conference is to advise on future care and supervision and also on the most suitable form of employment. The conclusions of the conference are discussed with the parent, who is informed of any recommendations made for the child's future welfare. So far as is known these arrangements are unique in the country and have proved of great value in making suitable provision for children of this type after leaving school."

OPEN AIR SCHOOLS.

Dr. B. J. Boulton, M.B., Ch.B., the Medical Officer of the Open Air Schools, reports :

New Place Residential Open Air School, Porlock.

This school can accommodate about 40 pupils. The average number of children on the registers of the Bristol Education Committee's schools in December, 1947, was 48,870. In view of these figures it is therefore most desirable that the best use should be made of the available accommodation at Porlock. This is being done in the following way :—

- (a) by careful examination of the cases put forward for admission and of their medical records ; the physical condition of the child and an assessment of the benefits likely to result from residential open air treatment are matters of primary importance ;
- (b) by limiting the period of stay at the school. In the past there has been a tendency to keep pupils in residential open air schools far too long. When care is taken with the selection of cases it will rarely be necessary to keep a child for longer than nine months and in the majority of cases six months will be found to be sufficient.

This procedure enables a larger number of children to enjoy the advantages offered.

Certain types of cases are specially suitable for residential open air school :—e.g., delicate children living in poor home conditions ; delicate children living in contact with an active case of pulmonary tuberculosis ; children who normally enjoy good health, but have been badly pulled down by recent illness or operation.

It might be mentioned that there is no residential medical or nursing staff at the school and cases who need this sort of care cannot be admitted until they reach a certain stage of convalescence.

The school should not be used as a temporary home for fit children during a period of domestic difficulty. Possible exceptions may be made in certain circumstances if there are no genuine candidates waiting for admission. Delicate children with a mild degree of physical handicap are accepted, but cases suffering from severe crippling disabilities are not suitable. Parental keenness and co-operation with the Headmaster and Matron of the school play a very important part in the treatment. In fact with the limited number of places available for Bristol's school population one is inclined to advocate a rigid ' turning out ' of non-co-operative cases when any waiting list exists.

After leaving the residential school the great majority of the pupils will be able to return to the ordinary schools. Occasionally a child who does not make satisfactory progress at the residential school is transferred to the day open air school in Bristol for medical observation and continued open air school conditions.

Nover's Day Open Air School, Nover's Hill.

This school has accommodation for 100 delicate and physically handicapped children. Here again the tendency in the past has been to keep delicate children at the school for too long a period, even from four to five years. With a few exceptions, a period ranging from six months to a maximum of two years will be considered as covering the needs of most children and at the same time making the best use of the available accommodation. Certain types of cases present difficulty, e.g., chronic pulmonary conditions other than tuberculosis, i.e., bronchiectasis; certain cases of asthma; certain so-called cases of malnutrition, i.e., the under-sized and underweight child. A number of these show marked improvement at an open air school. Many others maintain a certain standard of health which shows little tendency to improve however long they are retained at the school. The Ministry of Education in their pamphlet No. 5 on Special Educational Treatment make certain observations bearing on this matter and in Section 9 they include the above types of cases in the category of delicate children. At the same time it is pointed out that children are rarely to be classed as delicate pupils if their disability is likely to be of a permanent nature. There is the problem, therefore, as to how long these children should be retained in the open air school. When they are discharged and return to ordinary schools they come under the observation of the medical officer, school nurse or other observer and there is a tendency to recommend their re-admission to the open air school. These children usually have enough to cope with without the educational handicap associated with frequent changes of school.

There is accommodation at the school for about 40 physically handicapped children and crippled children occupy the majority of these places. Those suffering from the more severe types of crippling defect usually remain at the school throughout their school life, that is until they are 16. Others go for a period of convalescence following treatment in sanatoria and orthopaedic hospitals. When the disability is not severe and the educational development is satisfactory it is not to the advantage of these pupils to retain them at the school for too long a period and many can with advantage attend ordinary schools near their homes.

A few of the places for physically handicapped pupils are occupied by children suffering from congenital rheumatic heart lesions. In recent years, however, very few cases of this type have been recommended for admission to the school. Professor Perry is now in favour of these children attending ordinary schools wherever possible and experience has shown that the cardiac cases which have been found to be unfit to attend an ordinary school are usually absent for long periods from the special school, especially during the winter months. The school also caters for other types of physically handicapped children. I would specially mention the sensitive type of child who is suffering from some disability or deformity which would be likely to cause them embarrassment or unhappiness in ordinary schools, e.g., facial deformity, temporary complete alopecia, severe chronic psoriasis, certain types of dwarfism and severe degrees of speech defect.

General Remarks.

I need not do more than mention here one or two matters which have already received attention; the way in which the site of Nover's Open Air School falls short of the ideal, and the difficulties involved in running as a single unit a school composed of delicate children needing open air treatment, cripples and cardiac cases.

The short school day is another matter worthy of mention. It is of course due mainly to the time involved in collecting the pupils and taking them home again by motor transport. It is here especially that the advantages of the residential open air school become apparent. There the pupils spend the full 168 hours of the week whereas the children are at the open air school for only 32½ hours each week.

At both open air schools the results generally have been very encouraging and much appreciation has been expressed by parents. Even when results are disappointing as judged by medical standards, there is usually a noticeable improvement in the child in such matters as self-confidence, sociability and community spirit.

The number of children on the registers at the end of the year is as follows :—

	Boys	Girls	Total
Novers Open Air School :			
Debilitated children	30	27	57
Physically defective children	17	24	41
New Place, Porlock :			
Debilitated children	20	18	38
Physically defective children	—	—	—

Party of Delicate Children sent to Switzerland.

Early in the year the Education Committee was invited by the Ministry of Education to send a party of forty-five children from Bristol as part of a group of two hundred children from towns mainly in the West of England that had suffered in the war, for a stay of three months in Switzerland. The scheme was arranged through the generosity of the Swiss people who offered a three months' holiday to children who had suffered through the war and who would benefit from a health point of view by such a holiday.

The arrangements were made through the Swiss Red Cross. Recommendations were invited from various bodies such as the Bristol Branch of the Ministry of Pensions, the Soldiers', Sailors' and Airmen's Families Association, the Bristol Crippled Children's Society, etc. The Heads of Bristol schools and the School Health Visitors were also asked to submit names of suitable children. From among these a final selection of forty-five was made by Dr. B. J. Boulton, Medical Officer of the Open Air School.

The Lord Mayor of Bristol War Services Council generously agreed to contribute the sum of £400 to defray the travelling and incidental expenses of the party.

The party left England on the 7th May, 1947, and returned on the 30th July. The children all had a splendid time and benefited much in health by their holiday. The Committee would like to place on record their sincere thanks and appreciation to the Swiss foster parents for the kindness and generosity shown to the children, and to the Swiss Red Cross, the Ministry of Education and the Lord Mayor of Bristol War Services Council for making this visit possible."

Schools for Deaf and Partially-sighted Children.

In November, 1947, the day school for deaf children was removed from Shirehampton School to more commodious premises at Elmfield, Westbury-on-Trym.

The number of children on the registers at the end of the year at the day schools for Deaf and Partially-sighted Children is as follows :—

	<i>Boys</i>	<i>Girls</i>	<i>Total</i>
Partially-deaf children	3	—	3
Deaf children (including 2 children from other authorities)	15	24	39
Partially-sighted children	20	13	33

In addition to the above the following handicapped children were being maintained in Residential Special Schools on 31st December, 1947 :—

Epileptic Children.

	<i>Boys.</i>	<i>Girls.</i>	<i>Total.</i>
Lingfield Epileptic Colony, Surrey	1	—	1
Chalfont Epileptic Colony, Bucks	—	1	1
Maghull Epileptic Colony	1	—	1

Educationally Sub-normal Children.

Allerton Priory Residential School Liverpool	—	2	2
Besford Court Residential School, Worcester	14	—	14
Moneyhull Residential School, Warwickshire	1	—	1
Sandhill Park Residential School, Dawlish	1	—	1

Blind and Partially-sighted Children.

Royal School of Industry for the Blind, Westbury, Bristol	7	3	10
West of England Institute for Partially-sighted Children, Exeter	3	3	6

Deaf Children.

St. John's Institute for Deaf Children Boston Spa, Yorks.	2	1	3
---	---	---	---

Maladjusted Children.

St. Francis Residential School, Dorset ..	1	—	1
---	---	---	---

Delicate Children.

St. Patrick's Open-Air School Hayling Island, Hants.	—	1	1
--	---	---	---

Physically Handicapped Children.

	<i>Boys.</i>	<i>Girls.</i>	<i>Total.</i>
Burton Hill House School, Malmesbury ..	—	2	2
Winford Hospital School—			
Heart Cases	11	16	27
Orthopaedic Cases	7	5	12

During the year 63 children who had been under treatment for orthopaedic disabilities were discharged from Winford Orthopaedic Hospital after an average stay of 66.4 days and 27 children who had been under treatment for heart disease after an average stay of 215.9 days.

NURSERY SCHOOLS AND CLASSES.

There are 12 nursery schools under the Education Committee with accommodation for 835 children between the ages of 2 to 5. In addition 36 infant schools have nursery or baby classes accommodating in all 1,270 children between the ages of 3 and 5. All these nursery schools and classes remain full with long waiting lists, the number of children awaiting admission being over 1,500. As a result of the rise in the birth rate in recent years an increasing number of infant children will be due to enter school in the near future. In spite of the great demand for nursery places it will, unfortunately, be necessary to discontinue many of the nursery classes in order to make room for these children.

Details of medical inspections in nursery schools and classes during the year are as follows :—

		<i>Periodic Exams.</i>	<i>Re-exams.</i>
Nursery Schools	529	1,798	
Nursery Classes	755	1,665	
Number of Special Inspections and Re-Inspections			940

Classification of Nutrition.

	<i>Number of children inspected.</i>	<i>"A" Good.</i>		<i>"B" Fair.</i>		<i>"C" Poor.</i>	
		<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>
Nursery Schools	529	225	42.5	260	49.1	44	8.3
Nursery Classes	755	309	40.9	399	52.8	47	6.3

Treatment of Minor Ailments.

No. of defects treated in clinics and at schools and classes 6,631

Treatment of Defective Vision and Squint.

Errors of Refraction (including squint)	27
No. of pupils for whom spectacles were	
(a) Prescribed	12
(b) Obtained	12

Dental Inspection and Treatment.

No. of pupils inspected by the Dentist—							
Periodic Inspections	1,409						
Special „	104						
TOTAL	1,513						
No. found to require treatment	708						
No. actually treated	319						
Attendances for treatment	371						
Extractions of temporary teeth	262						
Fillings of temporary teeth	38						
Administrations of general anaesthetics for extractions	153						
Other operations on temporary teeth	355						

MEDICAL TREATMENT OF THE PRE-SCHOOL CHILD.

The following cases of children under school age were treated at the various clinics during the year :—

Eye Disease	152
Ear Disease	318
Skin Diseases	817
Minor Ailments	202
Aural Surgeon's cases	76
Eye Specialist's cases	152
Heart Specialist's cases	13
Orthopaedic Specialist's cases	271
Chiropody Clinic cases	11
Various	660
	2,672

INFECTIOUS DISEASES.

Cases of measles among school children during the year numbered 1,514. School cases of scarlet fever totalled 280, whooping cough 168, and there were five cases of cerebro-spinal fever.

The number of cases of diphtheria occurring in children of school age during the year was 22 as compared with 23 in 1946 and no deaths from this disease were reported. Only four cases of polio-myelitis occurred amongst children of school age in 1947 and there were no deaths among these cases.

During the year 406 patients of school age were admitted to the Infectious Diseases Hospital at Ham Green, the average stay per patient being 21.35 days.

Immunisation against Diphtheria.

During 1947, 1,093 children of school age received a full immunising course of inoculations against diphtheria.

The complete figures for the year are as follows :—

Number given full course of immunising inoculations	1,093
Number given a " booster " injection	2,601

It is estimated that approximately 65 per cent. of Bristol school children have now been immunised against diphtheria.

It is interesting to note that diphtheria cases amongst school children in Bristol have been reduced in the last few years from 476 confirmed cases with 8 deaths in 1940 to 22 in 1947, with no deaths.

Diphtheria cases amongst school children, in the last 3 years :

1945	46
1946	23
1947	22

Of the 22 cases in 1947, 3 cases (2 mild and 1 severe) had received injections for immunisation against diphtheria.

PHYSICAL EDUCATION.

Mr. J. Mc A. Milne, Chief Organiser of Physical Education, contributes the following report which has been compiled with the assistance of Miss C. E. Cooke, Senior Woman Organiser of Physical Education :—

" The raising of the school leaving age and the shortage of teachers, especially women, are serious problems which will affect the work until more teachers are available and additional accommodation is provided. A number of Emergency trained teachers will shortly be attending a three months' course in physical education and when they return, their services should prove very useful. Further refresher courses for teachers in Infant, Junior and Senior schools have been held during the past year and a 40 week course (one evening per week) has been held for men teachers and leaders of recreative physical training.

The standard of swimming has been maintained during the year and it was possible to accommodate the majority of the additional children in the schools due to the raising of the school leaving age. Additional swimming baths are required in certain areas of the city before the full swimming scheme can be put into operation.

Play Centres for school children and Games Centres for youths and adults were held during the summer months on the Committee's playing fields and a number of fields were available as Play Centres for school children during the summer holiday.

During the year, the playing field acreage has been considerably increased and the Committee now control and use approximately 200 acres. Although a number of playing fields are still rather crowded, all Secondary school children attend a playing field each week.

The experimental work in Infant and Junior schools has been continued and a considerable number of additional Primary Schools have been provided with the necessary apparatus for this work.

Experiments with climbing apparatus begun in 1944 in a few Primary Schools, have developed considerably during the last few years. Fifty-four Primary Schools have now some form of this apparatus while the Nursery Schools are fully equipped. These experiments were first introduced on account of the acute shortage of all small apparatus such as balls, hoops, etc. It was, however, possible to get the simple climbing apparatus such as jungle gyms, etc., already enjoyed to some extent by nursery school children. There were also nets used in commando training which could be adapted for children's use.

The innate desire of young children to climb and swing had never been fully catered for in Primary Schools and those children who had been given the opportunity to enjoy such movement in the Nursery School found that the bare playground of the Infants School left much to be desired, while others who had not been in a Nursery School had their potentialities for movement discouraged from the beginning.

All over the country a new approach is being given to Physical Education, in line with and part of the general educational developments of to-day. Children are encouraged to experience movements with, or without apparatus in their own way as well as having training in the fundamentals of footwork, general mobility and relaxation.

During the war area meetings were held in Bristol for teachers, when demonstration lessons were given showing the use of apparatus and the methods of training. Since the war, at the request of the teachers, courses of ten classes have been held in the evenings in seven areas; these have been well attended by both women and men and in many cases by the Heads of the schools concerned. Demonstration lessons with children have usually been more popular than practical classes for teachers, for though adults enjoy playing with small apparatus, it is not so easy for them to indulge in such things as hanging by their toes from a net. In these classes great stress is laid on relaxation and mobility training and teachers are encouraged to look out for signs of excess rigidity, or on the other hand special skill, both of which have so important a bearing on the behaviour of their children.

To ensure adequate benefit from the physical training lesson it is essential to have individual mats on which the children can perform sitting movements and learn to relax. These can be used outside in fine weather and are also invaluable in a hall used for assembly and school meals. The state of the floors in many schools is at present very disquieting. It is desirable that special attention should be given in the future to the construction of good hall floors; these ought to be of a type that is easy to keep clean and not liable to splinter. Only a very small proportion of schools have so far been supplied with individual mats.

Where children work barefooted, it has been noticed that they come to the lesson with much cleaner feet but it is most unsatisfactory to have to send them home dirty, because of the state of the floors. Many floors, too, have splinters and in these cases it is only possible to do foot movements if mats are provided. Work is very severely hampered if heavy shoes are worn.

The parents are more willing to provide light shoes for their children and to allow them to discard much clothing in schools where climbing apparatus has been installed. Open days, in which the parents can see their children performing feats on the apparatus, have been a wonderful help in gaining the co-operation of the over-anxious mothers of only children.

A coloured film of this free work has also been shown at parents' meetings, when great interest has been aroused.

The climbing apparatus gives scope for initiative and spontaneity, while it encourages self-reliance, develops skill and provides opportunity for each child to experience adventure at his own pace, while neither hindering nor disregarding others. The effect on the timid or nervous child is very remarkable; many children have overcome their fears and acquired ease of movement through the present type of training.

It must be remembered that when using any type of climbing apparatus, children are free to choose their own activities and this, together with the training given in relaxation and mobility, ensures safety, for it has been found that if left to themselves, children will not attempt what is beyond their power of achievement. Mats for landing are not used as it is more important for children to be self-reliant in landing than to rely on external aids that might even suggest danger.

The interest that climbing apparatus has aroused in children and teachers calls for its more general instalment in all types of schools and especially in those bare play grounds of a city where there are no trees to climb and where there is not even a bench on which to sit."

THESE ILLUSTRATIONS SHOW SOME OF THE MORE MODERN TYPES OF PHYSICAL TRAINING APPARATUS IN USE IN THE PRIMARY SCHOOLS.



Parallel ropes fastened to walls and kept taut by a block and pulley.



Portable pole. The use of this demands much concentration and self-control.



INFANTS' OVER-POLE CLIMBING NET

The Headmistress of these children says that the attendance at school has markedly improved since the net and ropes were erected. The backward children have taken a new interest in school life which has extended to their other work. Only light shoes may be worn on the apparatus so three children are climbing barefooted and making good use of their toes. Their shoes are seen by the wall.



These illustrations show the use of mats in school playgrounds for exercise and relaxation.

MEALS AND MILK SERVICE

At the end of the year approximately 2,330 children were receiving free dinners and 18,960 on payment. Fifty kitchens were supplying meals at this time to 174 canteens in all types of schools. Throughout the year there was a steady increase in the demand for dinners.

Facilities for the distribution of dinners and milk during the holidays were made available where necessary but the demand was small compared with term time. 473,410 free dinners were supplied to "necessitous" children during the year as compared with 415,659 in 1946. The number of dinners supplied on payment was 3,477,255 as compared with 2,874,077 in 1946.

From a return taken in October, 1947, 40,467 children were supplied with milk, representing 87.84 % of the children in attendance at Primary and Secondary Schools on the day of the return.

CO-OPERATION OF PARENTS.

The number of parents present at primary and secondary school medical inspections was as follows :—

	No. <i>Exam'd.</i>	Parents <i>present.</i>	Per <i>cent.</i>
Entrants	7,298	6,300	86.3
Second Age Group	5,128	4,101	79.9
Third Age Group	1,959	321	16.4
TOTAL	14,385	10,722	74.5

EMPLOYMENT OF CHILDREN.

The Employment of Children Inspector reports :—

"During the year ended 31st December, 1947, there were 1,551 cases of infringement of the Children and Young Persons Act, 1933, and Bye Laws made in pursuance thereof:—

By Employers :—

Minor offencees	638
Failure to submit half-yearly reports	162
By Parents	641
By Street traders	37
Prosecutions, Final Notices, Refusals, etc.	73
	<u>1,551</u>

The above were dealt with as follows :—

Warned	1,478
Final Notices—	
to parents	2
to employers	22
Prosecutions taken	4
„ pending	2
„ not recommended	1
Employment Cards—	
Refused	40
Revoked	2
	<u>1,551</u>

During the year 360 children between the ages of 13 and 15 years were registered to be employed in deliveries in connection with the following trades :—

						Boys.	Girls.
Bakers	..	..	..	..	..	3	—
Boot and Shoe	..	..	..	..	..	1	—
Builders	..	..	..	..	..	1	—
Butchers	..	..	..	..	..	8	—
Dairies	..	..	..	..	..	2	—
Fishmonger	..	..	..	..	..	1	—
Greengrocers	..	..	..	..	..	1	1
Grocers	..	..	..	..	..	11	—
Motor mechanics	..	..	..	..	..	1	—
Newspapers	..	..	..	..	..	319	9
Tailors	..	..	..	..	..	2	—
						350	10

Two licences were issued, 3 renewed and 1 cancelled for street trading by young persons between 16 and 18 years of age.

Public Entertainments.

Thirty-four licences for children to take part in public entertainments in local theatres, in accordance with the provisions of the Children and Young Persons Act, 1933, were granted as follows :—

Bristol C.B.C.	..	..	..	..	..	..	1
Barrow-in-Furness C.B.C.	..	..	..	..	..	..	1
Bath C.B.C.	..	..	..	..	..	..	1
Birmingham C.B.C.	..	..	..	..	..	..	11
Chester C.C.	..	..	..	..	..	..	1
Finchley B.C.	..	..	..	..	..	..	1
Gateshead C.B.C.	..	..	..	..	..	..	1
Lancashire C.C.	..	..	..	..	..	..	1
Manchester C.B.C.	..	..	..	..	..	..	11
Middlesbrough C.B.C.	..	..	..	..	..	..	1
Salford C.B.C.	..	..	..	..	..	..	1
Stockport C.B.C.	..	..	..	..	..	..	1
Warwick C.C.	..	..	..	..	..	..	1
Worcester C.C.	..	..	..	..	..	..	1
							34

One licence granted by the Somerset County Council was withdrawn—non-compliance with conditions.

One application for renewal of licence was refused by the L.C.C.

2,390 children were granted permission by the Committee to take part in 57 entertainments given for charitable purposes.

Theatres, halls, dressing-rooms, lodgings and schools were visited to ascertain that the conditions under which these children were employed were satisfactory.

SPASTIC CHILDREN

On the suggestion of the Ministry of Education a survey of spastic children in Bristol was undertaken by Dr. A. L. Smallwood, who reports :—

SURVEY OF " SPASTIC " SCHOOL-CHILDREN BETWEEN THE AGES OF 5 AND 16 YEARS.

The following is a definition of spastic conditions as agreed by the Central Council for the Welfare of Spastics :—

" A series of clinical conditions (whether associated with mental disability or not) made manifest by muscular rigidity, paresis and uncontrolled movements which may be present singly or in combination, resulting from imperfect development or degeneration due to injury or disease of the nerve cells of the cerebral cortex, basal ganglia or cerebellum."

As a result of a survey carried out in Bristol, it was found that the following children came within the definition on January 1st, 1948 :—

Age	5	6	7	8	9	10	11	12	13	14	15	16	Total
Number	5	3	3	8	9	10	9	6	8	7	6	—	73

On examination of the figures it is plain that not all the children in the younger age groups have been discovered, and possibly some of those in the older age groups have not been ascertained. Taking the figures for the ages 9 to 11 as representing all in these age groups, it seems that the total number of spastic children of school age should be between 90 and 100.

The following table sets out where they are at present receiving their education or training :—

TABLE A

Ordinary School	33
Open Air School	8
Educationally Subnormal School	7
Notified to M.D. Acts	18
Other	7
	— 73

It is considered that 34 of these 73 children at present need, or would have benefited by, special educational treatment of a type that is not ordinarily available to them in the schools maintained by the Authority. It is possible that this figure has been set too high in view of the lack of knowledge of these children which is, at present, available. These 34 now receive their education as follows :—

TABLE B.

Ordinary School	14
Open Air School	7
Educationally Subnormal	3
M.D. Acts (Occupation Centre)	5
Other	5
	— 34

The following is a list of the Intelligence Quotients of the subjects of this enquiry, according to the revised Terman-Merrill Scale :—

At Ordinary School :

I.Q. 99 86 100 78 97 67 80 83 81 79 104 81 85 113

At Open Air School :

I.Q. 67 67 85 65 92 61 109

At Educationally Subnormal School :

I.Q. 57 71 69

At Occupation Centre (M.D. Acts) :

I.Q. 44 40 41 50 and one untestable by reason of defective sight.

Receiving other training :

I.Q. 45 79 39 66 68

The need for special educational treatment arises because :—

- (i) They are physically handicapped and need intensive physiotherapeutic measures which are preferably done at school.
- (ii) they are educationally retarded, especially in the early years, and very frequently "late developers,"
- (iii) their physical inferiority frequently gives rise to emotional difficulties,
- (iv) there is frequently a speech disability, and in the case of the hemiplegics difficulty with writing and speech when the side of the brain which ordinarily deals with these matters has been damaged.

Some of the more severely handicapped children are at present at the Open Air School but this school could not possibly take all of the subjects of this survey, and it would seem desirable that a special class, or classes, should be set up for them, so as to provide special educational treatment in appropriate age groupings.

With the small number of 24 (taking the first three groups in Table B) the responsibility of this Authority, the most suitable course would be to invite the co-operation of neighbouring Authorities, so that all the children suffering from this defect can be satisfactorily grouped and provided with the necessary special educational treatment, including physiotherapy and attention to speech and other defects.

The type of provision in mind is a boarding school for children from country districts, which would take day pupils from the urban area near to which it was situated. An alternative suggestion would be a hostel for boarding children from a distance who would attend a special class or classes attached to an ordinary school. For the needs of this region, it would seem that such a boarding school or hostel should be sited in or near Bristol, and it is recommended that neighbouring Education Authorities should be invited to meet and plan on the basis of the figures here submitted. Informal approaches have been made to the Ministry of Education and little hope has been given that any central planning is likely to meet the need.

TONSILS AND ADENOIDS

Dr. A. L. Smallwood, reports :—

At the end of 1947, and in view of changes which are imminent, it seems a desirable point to review the work of the Authority in relation to the problem of "tonsils and adenoids" and a graph is shown herewith indicating the variations in the number of cases found at School Medical Inspection and Minor Ailment Clinics and referred to the Ear, Nose and Throat Surgeon for his opinion on the desirability of tonsillectomy and adenoidectomy, the number of cases treated by surgical intervention, and the number of cases of Otitis Media found. The figures are quoted from and including 1922, those before that date being, for one reason or another, unreliable.

It should be explained that the figure of "number of operations done" is obtained from a nurses' follow-up enquiry and undoubtedly it does not represent the total number of schoolchildren subjected to operation. This is to be contrasted with the method possible in a smaller town where the one hospital is able to keep a separate account of the number of schoolchildren submitted to operation. It is hoped in the future that records will be available, from the hospitals, of all school-children who are treated there.

The features of the figures are the fairly constant percentage of cases treated until 1928 when there was an increase of 50 per cent. In 1931, probably as a result of Sir George Newman's famous warning that too many tonsillectomies were being done, the percentage drops, but only in 1934 and 1936 did it reach the previous level. In 1937, however, the figure was at the previous peak and in 1938 this had been greatly exceeded. There was no apparent reason why the rate of tonsillectomy should have been almost doubled between 1936 and 1938.

A special feature is that the reference rates in 1937-1938 were approximately the same as the reference rates in 1923-6 yet the percentage of children treated to the number of children on the registers was 50% increased in 1937 and 100% increased in 1938.

The relationship of Otitis Media to unhealthy tonsils is not clear. Between 1928 and 1931 there was a steady increase in the number of cases of Otitis Media from 625 to 783, whereas the rate of tonsillectomy was high throughout. From the peak year, 1931, the number of cases of Otitis Media diminished until 1936, showed a temporary increase in 1937 and again diminished in 1938 compared with 1936. The number of cases of ear disease treated at the clinic shows a steady fall from 1930 to its minimum in 1938. One can only assume that not all the cases found at inspections were being referred for Specialists' advice, perhaps because of the short duration of the disease.

Further investigations are proceeding with a view to determining whether tonsillectomy has any influence on the progress of ear disease.

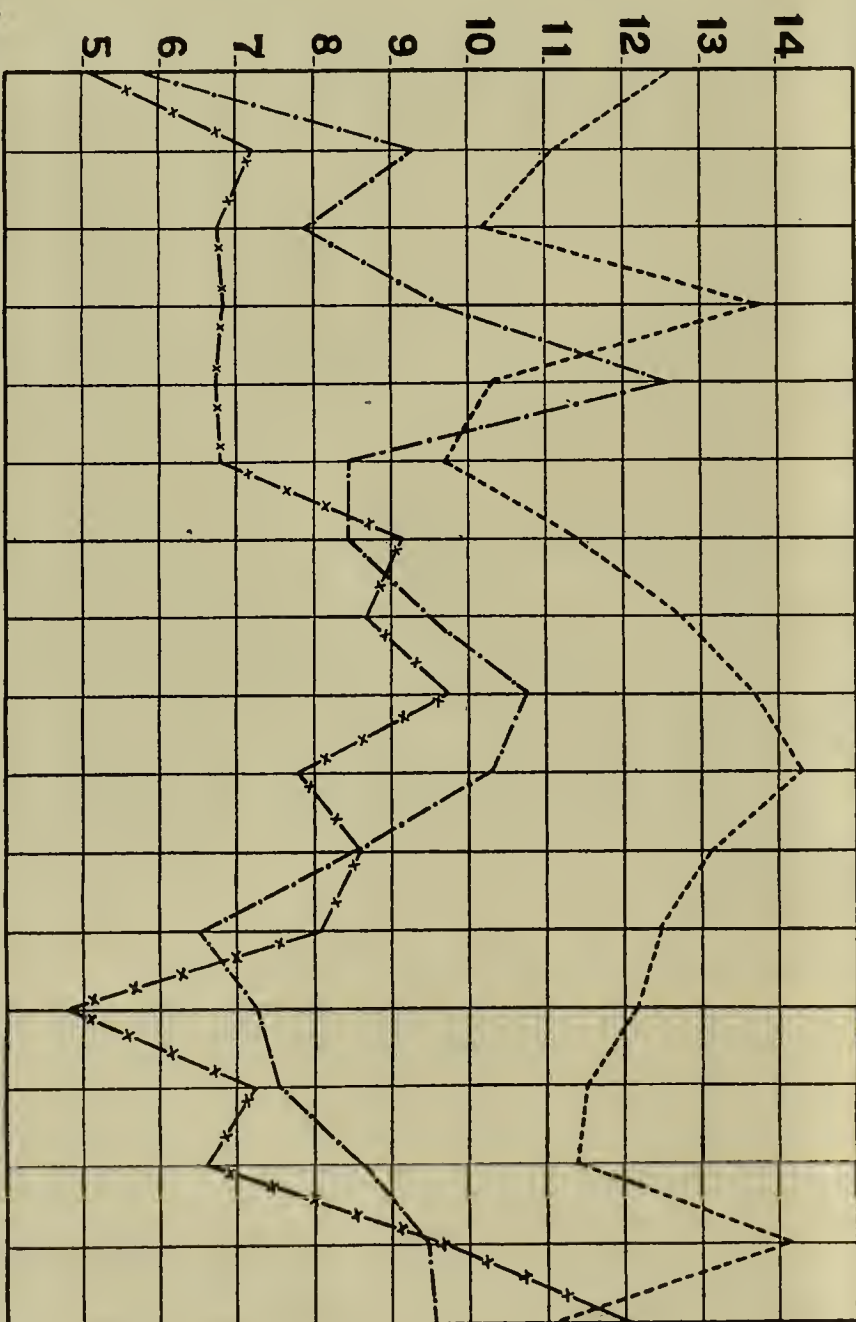
Tonsils and Adenoids

Year.	Number on Register.	Number of cases found at School Med. Inspns. and Special Insps. to require treatment for tonsils, adenoids or tonsils and adenoids.	Number of cases treated by tonsillectomy &/or adenoidectomy.	Number of tonsillectomies &/or adenoidectomies shown as a percentage of :—		Number of cases of Otitis Media :—	
				those found to require such treatment.	total number of children on register.	found at Sch. Med. Inspection and Special Inspections.	treated at the Ear, Nose and Throat Clinic.
1922	56,303	984	285	28.96	0.51	711	No figure.
1923	55,486	1,556	400	29.51	0.72	622	500
1924	54,891	1,303	372	30.92	0.67	558	471
1925	54,475	1,555	376	24.18	0.69	753	526
1926	54,704	1,444	366	23.35	0.67	565	736
1927	55,144	1,387	373	26.89	0.68	535	817
1928	54,758	1,381	498	33.63	0.91	625	1,020
1929	54,502	1,532	473	30.87	0.86	692	1,015
1930	54,540	1,760	535	32.23	0.98	742	1,066
1931	54,822	1,689	431	25.52	0.79	783	825
1932	55,829	1,427	475	33.29	0.85	734	612
1933	56,614	1,101	456	41.42	0.81	705	676
1934	55,093	1,194	270	24.68	0.49	674	447
1935	53,531	1,205	384	31.87	0.72	613	597
1936	52,321	1,340	343	25.59	0.66	599	462
1937	51,487	1,450	497	34.28	0.97	727	382
1938	50,452	1,411	607	42.12	1.20	562	203

EARNOSE & THROAT CONDITIONS IN SCHOOL-CHILDREN, YEARS 1922-1938

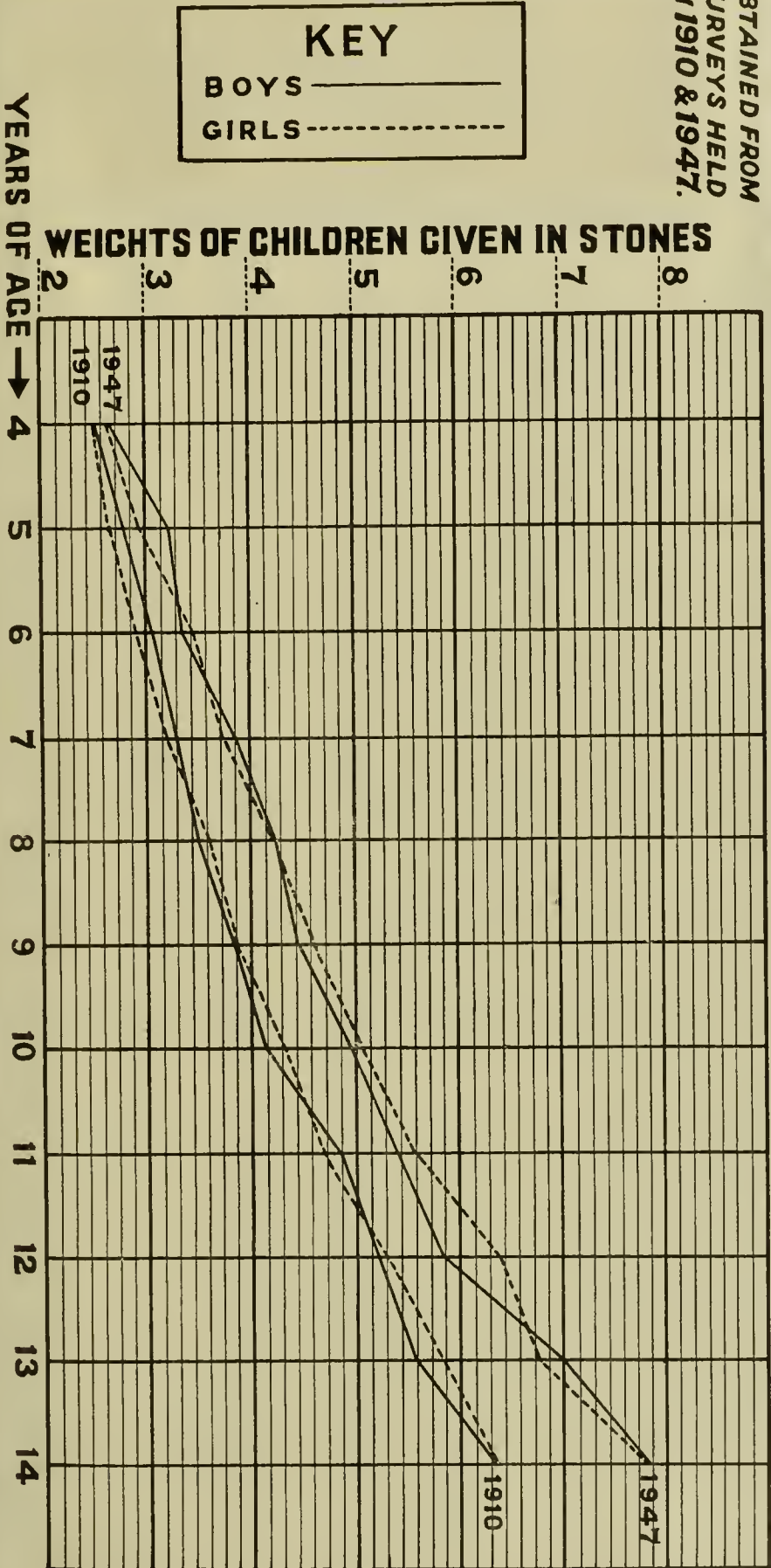
YEARS → 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1935 1936 1937 1938

KEY
 FREQUENCIES PER 1000 CHILDREN
 OTITIS MEDIA-----
 TONSIL & ADENOID CASES ($\frac{1}{3}$ SCALE OF OTHERS)-----
 TONSILLECTOMY—x—x—x—x—x—x—x—x—x—



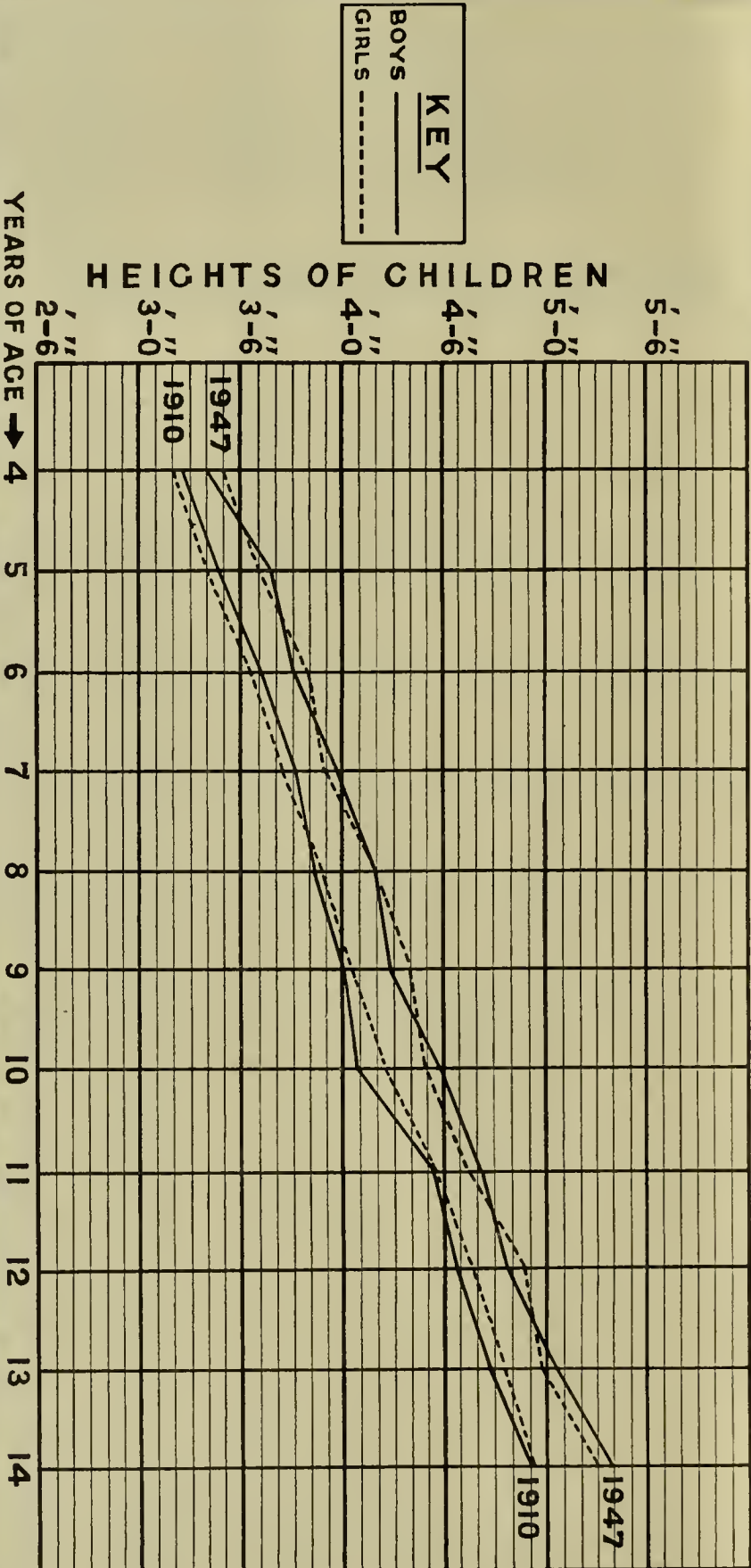
COMPARISON OF THE WEIGHTS OF SCHOOL CHILDREN IN 1910 & 1947

OBTAINED FROM
SURVEYS HELD
IN 1910 & 1947.



An analysis of the records of the heights and weights of 50 boys and 50 girls of each age group attending the Committee's schools was made during the year by Dr. J. Penn, of the Bristol Royal Infirmary. These children were from schools of all social strata so as to give a complete cross section of the nutritional state of Bristol children. This record has been produced in graphic form with the comparative record of the average heights and weights of Bristol school children in 1910. At the age of 4 years, the difference in the two records is 1 to 1½ lbs. and 1½ to 2½ inches; at the age of 7 years 7½ to 8 lbs. and 3 inches, and at the age of 14 years 21½ to 24½ lbs. and 4½ to 5½ inches. The figure of heights of boys of 10 years of age in the 1910 record is probably not a true figure because of the small group of children used. The general conclusion which can be drawn from these figures is that children are now maturing more rapidly than those of about 40 years ago.

COMPARISON OF THE HEIGHTS OF SCHOOL CHILDREN IN 1910&1947



STATISTICAL TABLES.

YEAR ENDED 31ST DECEMBER, 1947.

TABLE I. MEDICAL INSPECTION OF PUPILS ATTENDING MAINTAINED PRIMARY AND SECONDARY SCHOOLS.

A.—PERIODIC MEDICAL INSPECTIONS.

1946	1. Number of Inspections in the prescribed Groups :—								1947
4,119	Entrants	..	..	..	..	..	..	..	7,298
4,335	Second Age Group	..	..	..	..	..	..	..	5,128
3,696	Third Age Group	..	..	..	..	..	..	..	1,959
	TOTAL	..	..	..	..	..	..	..	14,385
12,150	2. Number of other Periodic Inspections								3,192
2,800	GRAND TOTAL								17,577
14,950									

B.—OTHER INSPECTIONS.

30,229	Number of Special Inspections	..	..	..	..	..	31,688
23,091	Number of Re-inspections	..	..	..	..	..	24,027
	TOTAL	..	..	..	..	..	55,715
53,320							

C.—PUPILS FOUND TO REQUIRE TREATMENT.

NUMBER OF INDIVIDUAL PUPILS FOUND AT PERIODIC MEDICAL INSPECTION TO REQUIRE TREATMENT
(Excluding Dental Diseases and Infestation with Vermin.)

1946			GROUP.	1947		
For Def. Vision.*	For any other condn.	Total Individ. pupils.		For Def. Vision.*	For any other condn.	Total Individ. pupils.
98	468	557	Entrants	129	800	920
145	418	558	Second age group	96	391	483
113	227	333	Third age group	58	100	141
356	1,113	1,448	Total (prescribed groups)	283	1,291	1,544
71	109	169	Other Periodic Inspections	83	112	191
427	1,222	1,617	GRAND TOTAL	366	1,403	1,735

* Excluding Squint.

TABLE II.

A.—RETURN OF DEFECTS FOUND BY MEDICAL INSPECTION.

1946					1947			
PERIODIC INSPECTIONS.		SPECIAL INSPECTIONS.			PERIODIC INSPECTIONS.		SPECIAL INSPECTIONS.	
No. of defects.		No. of defects.			No. of defects.		No. of defects.	
Req. treatm't.	Req. obs. but not treatm't.	Req. treatm't.	Req. obs. but not treatm't.		Req. treatm't.	Req. obs. but not treatm't.	Req. treatm't.	Req. obs. but not treatm't.
36	4	3,685	8	Skin	45	—	3,878	15
459	199	191	1	Eyes—(a) Vision ..	390	137	171	1
32	27	30	—	(b) Squint ..	34	2	12	1
27	25	825	3	(c) Other ..	24	20	892	2
19	32	47	1	Ears—(a) Hearing ..	29	8	41	—
4	5	534	1	(b) Otitis Media ..	2	1	496	2
16	30	644	1	(c) Other ..	24	8	1,105	9
366	347	1,591	83	Nose or Throat ..	572	399	2,519	58
29	22	30	2	Speech	39	19	33	1
38	98	350	4	Cervical Glands ..	28	108	372	7
33	202	254	5	Heart and Circulation ..	59	136	168	5
12	14	645	18	Lungs	175	155	811	21
				Developmental—				
				(a) Hernia	11	5	7	—
				(b) Other	1	—	—	—
				Orthopaedic—				
105	25	14	—	(a) Posture	80	35	—	—
				(b) Flat Foot ..	27	10	—	—
166	118	192	4	(c) Other	117	34	191	5
				Nervous system—				
—	—	6	1	(a) Epilepsy ..	—	—	4	—
1	9	54	3	(b) Other	9	12	97	3
				Psychological—				
				(a) Development ..	22	19	5	—
				(b) Stability ..	1	1	5	—
729	484	11,658	294	Other	636	415	11,401	373

B.—CLASSIFICATION OF THE GENERAL CONDITION OF PUPILS INSPECTED DURING THE YEAR IN THE AGE GROUPS.

Age Groups.		No. of Pupils Inspected.	A. (Good).		B. (Fair).		C. (Poor).	
			No.	% of col. 2.	No.	% of col. 2.	No.	% of col. 2.
Entrants	..	7,298	2,869	39.31	3,927	53.81	502	6.88
Second Age Group ..	..	5,128	1,950	38.02	2,867	55.91	311	6.07
Third Age Group ..	..	1,959	985	50.28	879	44.87	95	4.85
Other Periodic Inspections ..	..	3,192	1,561	48.9	1,532	48.0	99	3.1
TOTAL	..	17,577	7,365	41.89	9,205	52.38	1,007	5.73
1946 TOTAL	..	14,950	4,128	27.61	9,557	63.93	1,265	8.46

TABLE III. TREATMENT TABLES.

GROUP I.—MINOR AILMENTS (excluding uncleanness).

No. of Defects treated, or under treatm't during the year.		No. of Defects treated, or under treatm't during the year.
1946		1947
	Skin—	
10	Ringworm—Scalp—	
29	(i) X-Ray treatment.	5
233	(ii) Other treatment	59
1,303	Ringworm—Body	256
1,305	Scabies	747
2,369	Impetigo	1,043
1,493	Other skin diseases	2,540
1,332	Eye Disease—(External and other, but excluding errors of refraction, squint and cases admitted to hospital)	1,823
17,689	Ear Defects	1,668
	Miscellaneous—(e.g., minor injuries, bruises, sores, chilblains, etc.)	20,554
25,763	TOTAL	28,695
249,109	Total number of attendances at Authority's minor ailments clinics	239,639

GROUP II.—DEFECTIVE VISION AND SQUINT

(excluding Eye Disease treated as Minor Ailments—Group I).

No. of defects dealt with		No. of defects dealt with
1946		1947
3,462	Errors of Refraction (including squint)	4,456
19	Other defect or disease of the eyes (excluding those recorded in Group I)	48
3,481	TOTAL	4,504
	No. of Pupils for whom spectacles were—	
2,123	(a) Prescribed	2,109
2,111	(b) Obtained	2,084

GROUP III.—TREATMENT OF DEFECTS OF NOSE AND THROAT

Total Number Treated.		Number Treated.
1,222	Received operative treatment—	
—	(a) for adenoids and chronic tonsillitis	1,152
211	(b) for other nose and throat conditions	34
	Received other forms of treatment	364
1,433	TOTAL	1,550

GROUP IV.—ORTHOPAEDIC AND POSTURAL DEFECTS.

Not available	(a) Number treated as in-patients in hospitals or hospital schools	76
	(b) Number treated otherwise, e.g., in clinics (schools or out-patient departments)	629

GROUP V.—CHILD GUIDANCE TREATMENT AND SPEECH THERAPY.

436	Number of pupils treated—	
166	(a) under Child Guidance arrangements	396
	(b) under Speech Therapy arrangements	163

TABLE IV.—DENTAL INSPECTION AND TREATMENT

1946		1947
	(1) Number of pupils inspected by the Authority's Dental Officers—	
37,418	(a) Periodic age groups	40,841
3,370	(b) Specials	2,973
40,788	(c) TOTAL (Periodic and Specials)	43,814
26,394	(2) Number found to require treatment	28,393
22,795	(3) Number actually treated	24,243
36,126	(4) Attendances made by pupils for treatment	36,507
	(5) Half-days devoted to :—	
319	(a) Inspection	357
3,551	(b) Treatment	*3,680
3,870	TOTAL	4,033
15,144	(6) Fillings : Permanent Teeth	14,989
1,836	Temporary Teeth	1,368
16,980	TOTAL	16,357
4,521	(7) Extractions : Permanent Teeth	4,487
23,360	Temporary Teeth	21,080
27,881	TOTAL	25,567
13,019	(8) Administration of general anaesthetics for extraction	12,917
	(9) Other Operations :	
6,680	Permanent Teeth	7,070
2,265	Temporary Teeth	5,078
8,945	TOTAL	12,145

In addition 418 sessions were devoted to the treatment of mothers and young children.

TABLE V. INFESTATION WITH VERMIN.

1946		1947
168,179	(i) Total number of examinations in the Schools by the School Nurses or other authorized persons	169,122
4,903	(ii) Total number of individual pupils found to be infested	4,320
Not available	(iii) Number of individual pupils in respect of whom cleansing notices were issued (Section 54 (2), Education Act, 1944)	17
	(iv) Number of individual pupils in respect of whom cleansing orders were issued (Section 54 (3), Education Act, 1944)	100

TABLE VI. SUMMARY OF WORK DONE DURING THE YEAR.

1946		1947
	School Medical Officers :—	
559	No. of Visits to Schools for Periodic Inspection	688
14,950	No. of Children Examined at Periodic Inspection in Schools	17,577
1,156	No. of Re-examinations in Schools	1,602
	Dental Surgeons :—	
38,937	No. of Children Examined—Periodic Inspections	42,251
3,479	Special „	3,077
23,077	No. of Children treated	24,566
	School Nurses :—	
	<i>Cleanliness Survey.</i>	
2,420	No. of Visits to Schools	2,497
168,179	No. of Examinations of Children	169,122
2,154	No. of Homes visited for uncleanness	2,097
4,087	No. of Homes visited for “following-up” etc.	3,177
	<i>Preparation for Medical Inspection.</i>	
582	No. of Visits to Schools	69
17,111	No. of children prepared	19,857

TABLE VII. SCHOOL CLINICS.

1946			1947
No. of Attend- ances.	Work.		No. of Attend- ances.
62,262	Central Health Clinic ..	Inspection clinic ; treatment of minor ailments : asthma clinic ; ear, nose and throat clinic ; zinc ionisation ; dental treatment ; ortho- dontic treatment ; refraction clinic ; X-ray treatment of ringworm ; treatment of scabies cases ; orthopaedic clinic ; remedial exercises ; electrical treatment ; massage and foot treat- ment.	57,931
1,467	Hotwells Treatment Centre	Treatment of minor ailments	859
1,183	Marybush Lane Clinic ..	Scabies treatment	576
42,521	Bedminster Health Centre	Inspection clinic : treatment of minor ailments : ear, nose and throat clinic ; dental treatment and refraction clinic.	40,514
6,845	South Bristol Baths Clinic	Treatment of minor ailments	6,601
16,083	Knowle Casualty Station	Treatment of minor ailments	17,042
1,795	Broadfield Road Clinic ..	Treatment of minor ailments	2,765
32,911	Speedwell Health Centre	Inspection clinic ; treatment of minor ailments ; ear, nose and throat clinic ; dental treatment and refraction clinic.	33,010
6,095	Verrier Road Clinic ..	Treatment of minor ailments	5,500
16,480	Portway Clinic. ..	Inspection clinic ; treatment of minor ailments ; ear, nose and throat clinic ; dental treatment and refraction clinic.	14,518
27,462	Southmead Clinic ..	Inspection clinic ; treatment of minor ailments ; ear, nose and throat clinic ; dental treatment, orthodontic treatment and refraction clinic.	26,282
1,596	Day E.S.N. Special Schools	Treatment of minor ailments	1,239
15,756	Novers Open Air School	Remedial exercises and massage ; treatment of minor ailments.	15,028
2,387	Chest Clinic	Chest Ailments	2,157
965	Cardio-rheumatic Clinic ..	Cases of heart disease and acute rheumatic in- fection.	1,074
8,822	Artificial light Clinic ..	Cases of anaemia and debility	9,694
1,298	Child Guidance Clinic ..		1,571
2,800	Speech Clinics		2,930
381	Orthoptic Clinic		278
—	Dental Hospital		70
49,109	Total Attendances		239,639
The number of attendances at the Central Health Clinic does not include school children who availed themselves of the facilities offered by way of Mass Radiography.			

TABLE VIII. NUTRITION.

No. of cases referred for treatment and observation from medical inspection, etc.

1946		1947
	Routine Medical Inspection.—	
14,950	No. examined	17,577
11	Referred for treatment for malnutrition	16
46	Recommended milk or meals	—
—	Recommended C.L.O.M., etc.	—
194	Recommended observation for malnutrition	278
	Nurses' Survey.—	
53,373	No. surveyed	58,991
2	No. referred to Clinic for malnutrition	10
1,217	No. advised to have milk at school	264
45	No. of cases of malnutrition found at Minor Ailment Clinics ..	14

TABLE IX. MILK AND MEALS.

1946		1947
415,659	Free meals supplied	473,410
3,611,886*	Free milk supplied (bottles)	7,948,473

* The supply of milk became free to all school children from 6th August, 1946.

TABLE X. SCHOOL NURSES.

1946		1947
	Following is a summary of the Nurses' Survey for the year :—	
1,445	No. of sessions	1,586
53,540	No. of children surveyed	58,991
5,685	No. with defects	4,122
	Of the cases with defects :—	
458	No. already under treatment	431
1,638	No. referred to clinic doctor	1,375
1,499	No. referred to clinic Eye Specialist	1,285
709	Minor Ailments referred for treatment	600
1,217	Underweight children advised to have milk in school	264
147	Will attend own doctor or Hospital	144
17	Refusals	23
	Of the cases referred to Clinic Doctor :—	
934	No. requiring treatment or observation	902
47	No. discharged—no treatment or observation required	35
1	No. already obtained treatment	1
656	No. failed to attend clinic	437
1,638		1,375
	The defects referred to Clinic Doctor requiring treatment, or to be kept under observation, were :—	
199	Skin	215
48	Scabies	31
46	Eye disease	26
23	Defective vision	46
40	Ear disease	30
250	Nose and Throat	223
—	Teeth	2
5	Lungs	3
58	Deformities	31
2	Malnutrition	10
268	Other defects or diseases	287
939		904
	Total number of visits to schools in respect of verminous condition and general examination during the year	2,497
2,420	Total number of examinations made	169,125
168,179	Number of re-examinations (included in above total)	3,180
3,981		

Appendix XIV.

REPORT
OF THE
MENTAL DEFICIENCY ACTS
COMMITTEE

FOR THE YEAR

1947

CITY AND COUNTY OF BRISTOL

COUNCIL MEMBERS.

The Rt. Hon. The Lord Mayor (Alderman C. R. Gill, M.B.E., J.P.).
 Mrs. A. A. Nunn (*Chairman*).
 W. Dancy, Esq. (*Vice-Chairman*).
 Miss M. A. Badock.
 F. J. Burgess, Esq.
 Mrs. M. L. Deverell.
 Mrs. F. M. Harris.
 Rev. M. Stockwood.
 Miss G. M. Williams.

NON-COUNCIL MEMBERS.

Mrs. D. L. Collins.
 Mrs. J. Soames-Thomas, B.A.
 Mrs. F. V. Underdown.
 Mrs. G. N. Vicary, J.P.

Alexander Pickard, Esq., C.B.E., *Town Clerk*.
 E. M. Tapson, Esq., F.S.A.A., F.I.M.T.A., *City Treasurer*.
 R. H. Parry, Esq., M.D., B.S. (Lond.), F.R.C.P., D.P.H., *Medical Officer of Health*.

OFFICERS OF HORTHAM COLONY.

John F. Lyons, Esq., L.R.C.P. & S.I., D.P.H., D.P.M., *Medical Superintendent*.
 G. de M. Rudolf, Esq., M.R.C.P., M.R.C.S., D.P.H., D.P.M., *Visiting Psychiatrist*.
 John Fellows, Esq., F.H.A., *Steward*.
 Miss Margaret E. Hogarth, *Matron*.
 Rev. H. Radcliffe Cox, *Chaplain* (Church of England).
 Rev. O. Ayres, *Chaplain* (Non-Conformist).
 Rev. A. Hopwood, *Chaplain* (Roman Catholic).

CONSULTING STAFF.

R. R. Garden, Esq., M.A., M.B., Ch.B., D.P.H., D.O.M.S., Lond.
 G. R. Scarff, Esq., M.B., Ch.B., F.R.C.S., Edin.
 W. M. Capper, Esq., F.R.C.S.
 J. A. Nixon, Esq., C.M.G., B.A., M.D., Camb., F.R.C.P., Lond.

MENTAL DEFICIENCY ACTS, 1913-1938.

In pursuance of Article 12 of the Mental Deficiency Regulations the appended report on the work of the Council under the above Acts for the year ended 31st December, 1947, is submitted.

Part I deals with Hortham Colony Certified Institution.

Part II deals with the domiciliary work connected with defectives carried out by the Medical Officer of Health.

Part III contains a Statement of Accounts for the year ended 31st March, 1948.

A. PICKARD,
Town Clerk.

THE COUNCIL HOUSE,
BRISTOL.
April, 1948.

PART I.—ANNUAL REPORT OF THE HORTHAM COLONY CERTIFIED INSTITUTION, 1947.

To the Chairman and Members of the Mental Deficiency Acts Committee.

				Adults		Children		Total
				M.	W.	B.	G.	
Number of patients	resident	...	...	263	249	109	74	695
"	"	"	on licence	93	76	6	5	180
"	"	"	at hospitals	6	8	—	—	14
"	"	"	absconded	3	1	—	—	4
				365	334	115	79	893
						M.	F.	Total
Number of Bristol patients	resident	...	...	...	...	185	150	335
"	"	"	on licence	...	...	56	44	100
						341	194	435
Number of Out County patients	resident	...	...	...	...	187	173	360
"	"	"	on licence	...	...	43	37	80
						230	210	440

Movements of Patients During the Year.

				M.	F.	Total
Admitted	...	...	...	54	61	115
Discharged and removed	...	...	...	27	33	60
Written off books whilst on licence	...	...	...	20	26	46
Deaths	...	...	...	5	7	12
Removed to Mental Hospitals	...	...	...	2	1	3
Discharged—By Board of Control	...	...	...	6	5	11
Order lapsed	...	...	...	5	3	8
Section 15 Order withdrawn	...	...	...	2	2	4
Licence withdrawn	...	...	...	2	3	5
By Visitors	...	...	...	1	—	1

Health of Patients.

There was little serious illness and even during the severe weather of the early part of the year, when one would have expected the lower grades to suffer, there was little apart from the ordinary colds which were prevalent at the time.

There were 176 admissions to the hospital, mostly for minor ailments. Patients suffering from any condition which requires special care are transferred to this unit, where up to recent months we have always been able to have a general trained nurse in charge.

Two patients suffering from diphtheria were treated at Ham Green Hospital; there were eight cases of a mild form of dysentery and three others were found on routine examination to be carriers.

Seventeen x-ray examinations were carried out at Southmead Hospital, of which two were for fractures due to accidental injury.

Fourteen patients were admitted to Southmead Hospital for surgical or medical treatment, and fifteen patients were sent for out-patient treatment at other hospitals.

Fifty-seven visits were paid by the Consulting Staff. Dental sessions have been held each week and special sessions have been arranged as required for the supply and repair of dentures.

Six hundred and thirty-eight bacteriological specimens were examined at the Bristol University laboratory. These were mostly the routine examinations which are made at intervals of three months in the case of all patients who have suffered from dysentery in the past.

Licence.

No. of patients on licence at the end of 1946	...	...	...	146
No. of patients granted licence during the year	...	...	...	122
No. of patients written off the books whilst on licence	...	...	...	46
No. of patients returned from licence during 1947	...	...	...	42

Of the 42 patients returned from licence during 1947—

- 6 were from Hostels
- 13 were from Employers
- 23 were from Parents.

Reasons for return were:—

		Major fault of patient		Trivial fault of patient		No fault of patient	
Male	...	...	7	...	8	...	9
Female	...	...	1	...	9	...	8

Of those returned from licence, eighteen were out for a period of under six months; eleven from 6 months to one year; eight from 1 to 3 years; and five from 4 to 7 years.

There has been a big increase in the number of patients sent out on licence, 122 against 62 in the year 1946, and returns from licence have fallen considerably in proportion to the number sent out; 42 returns this year against 36 last year.

Many more patients could have been sent out in this way as there is such a big demand for help in these days, but it is only those who have proved reliable and can be reasonably expected to make good who are given this privilege.

Guardianship.

This is a very suitable form of care for the more stable type of defective and it is pleasing to report that there has been an increase in the numbers which have been transferred to it during the year—one female from the Colony and 5 male and 12 female patients from licence. There are others who could be dealt with in this way but it is difficult to find suitable guardians. It was hoped that by sending patients out to daily work interest would have been aroused locally for this form of care but this has unfortunately not been the case.

School.

The staff consists of one Supervisor, one Assistant Supervisor, four female assistants and one male assistant.

The average daily attendance has been 117 children. During this year a new method of teaching was introduced, which gives as much individual teaching as possible. Each patient in a class is given tasks according to ability—jig-saw puzzles, card games, plasticine or raffia work, and while they are occupied in this way, one patient is taken by himself and given lessons according to the lesson on the time-table. In this way that attention can be given individually which is so necessary, and training can be given without detriment to the progress of the others. Success in the three R's has been particularly noted.

High grade patients attend the workshops every afternoon for instruction in the handicrafts.

Adult classes for instruction in reading and writing have been held each afternoon and continuation classes have been held in the Lodges under the direction of an Assistant Matron.

During the year each child was re-mental tested. Of eighteen done on the Merrill-Palmer, the I.Q. was found to be higher in seven and on the Wechsler, out of twenty, three were found to have a higher I.Q. The 120 tested on the Vineland showed no change. Thirty-eight were done on the Merrill-Terman for the first time.

One Assistant Teacher was successful in obtaining the final certificate of the Royal Medico-Psychological Association and one passed the preliminary examination.

Occupational Therapy.

Every employable patient is occupied, according to capacity, in either the workshops, domestic work, garden or farm work, or in association with the work of other departments.

The bulk of our requirements in clothing and boots is made in the shops, which also deal with all the repair work.

The upkeep of the lawns and gardens provides occupation for patients who have to work under close supervision. Several male patients are employed on the farm, but the bulk of the summer work, including picking of crops, was done by a gang of female patients. During the season they picked 700 bags of potatoes and 120 bags of carrots.

Daily Work (outside the Colony).

An average of 40 male patients have been sent out to regular and casual work locally on either farms or gardens. Casual employment in this way is seasonal and during the height of the harvesting season up to 80 patients were sent out to help local farmers.

A small number of female patients have gone out to domestic work in the local hospital and to private employers.

Recreations.

This has been well catered for with weekly dances, cinema shows, lotto parties, impromptu shows and visiting concert parties.

Reading is popular with many of the high grade patients and a frequent change of books in the Colony library is kindly arranged by the City Librarian.

Spare time lodge crafts are popular and two sales of work during the year, at which many attractive articles were displayed, provided funds for a trip to the pantomime for those engaged on the work.

The cricket team played 37 matches against outside teams, of which 16 were won and 20 lost, and one drawn.

The hockey team of female staff and patients has played home and away matches and has had several wins.

The football team is not in the league this year owing to the difficulty of arranging for away matches, but several friendly matches have been played.

Sports Day was favoured by glorious weather. The Lord Mayor and Lady Mayoress and members of the Mental Deficiency Acts Committee attended.

It was a really good Christmas for the patients with a programme—including concerts, dances, and a Punch and Judy show—extending over a period of three weeks.

The amount available for patients' pocket money was increased by £300.

Scouts—207 Bristol Group.

Report by Scoutmaster Mr. S. C. Hunter:

On the 1st January, 1947, the strength of the Group was—Seniors 49, Juniors 7, total 56. Of these, 17 were 2nd class Scouts and five others were awarded Special Proficiency Badges.

During the year just ended, we lost 23 trained Scouts through licence to their homes and hostels. Additions to the troop numbered seven. The strength of the troop to date is 35.

Camps during 1947 were held at Cranham Woods, near Painswick, Glos., the first from 19th—26th July, 1947, and the second from 6th—15th September, 1947. These camps are both instructive and beneficial and without a doubt the boys learn much that will be useful to them when they take their place in the outside world. We received excellent reports from the Gloucestershire Boy Scouts' Association, and were awarded their Camping Standards Pennant. We also were awarded a "Highly Commended" Pennant from the Bristol Boy Scouts' Association. No comment is necessary, but in passing I would like to mention that the award of these emblems has done more to put Scouting at Hortham "on the map" than any other incident could have done. Hitherto most normal troops held the opinion that Scouting here was just a matter of wearing uniform during the winter months, and attending de luxe camps in the summer. They are now better informed.

Troop nights have been held weekly throughout the year, and in regard to this I would like to add that, in deference to the wishes of the Chief Scout, I have concentrated mainly on teaching the principles of the Scout Law, which in the main is character building. In connection with this, general knowledge "quizzes" are held twice monthly in addition to the normal troop night. These meetings have proved both entertaining and instructive, and are much appreciated by the boys. Occasional hikes for the purpose of tree and nature study are also held when weather and duties permit.

I have arranged with the District Commissioner of Bristol Polar and West Gloucester to hold inter-troop competitions during the coming summer months, and, if the scheme meets with approval, I hope to extend the idea to other troops of the Bristol L.A.

Guides—1st Hortham Colony.

Report by Guide Captain Doris Counsell:

The Company consists of 24 Guides.

During the past year the Company have had their weekly meeting. In June they all attended a Drum Head Service taken by Lady Baden Powell; they joined in the march past with 4,000 other Guides.

In July the Company camped at Brean Down and on the Hortham Annual Sports Day they formed a Guard of Honour for the Lord Mayor and Lady Mayoress; afterwards they gave a display of Folk Dancing.

Guiding for these patients has proved a great success and carries with it many advantages. Through it the Guides acquire a spirit of competition over their personal appearance and behaviour, each patrol trying their hardest to be the best. They learn to help each other, and the things they have to learn connected with Guiding helps them to improve their learning powers and memory and to try to be useful persons. They enjoy their meeting each week, where they have a personal inspection, learn the promise and Guide laws, knots and simple first aid, after which they play games, often competitive ones.

They are very proud to offer money to the Guide Thrift Fund, which of course teaches them to be thrifty.

During the summer they enjoy country rambles, gaining a knowledge of nature.

Camp.

Sixty female patients had a camping holiday at Brean, Somerset, from 5th—13th July, and sixty male patients from 13th—19th July. The weather for the female camp was very bad, but the best was made of it by the energetic staff for a constant round of activities. The men had a really glorious time of it with not a single bad day.

It was not possible to find accommodation for the children, but daily trips by bus to Weston-super-Mare gave them great pleasure.

Maintenance.

During the past year considerable progress has been made with the painting and decorating programme.

The external work completed during this period is as follows: main kitchen, steward's store, bakery, three female lodges, eight staff cottages, gate lodge, and the medical superintendent's house.

Colour schemes for internal decorating have been changed, and the following places have been painted and decorated: 12 day and side rooms in female lodges; handicraft workshop; heater room (boiler house); hospital kitchen; nurses' home kitchen; three sitting rooms, nurses' home; 14 bedrooms in the nurses' home; male mess room and the bakery.

Tiling of the main kitchen and the laundry wash house floors with 6in. x 6in. red quarry tiles has been carried out. Whilst the tiling was in progress a considerable amount of work was executed in moving and erecting steam and electrical appliances. Owing to all appliances and machinery being in use daily, speedy change over had to be made. When the old floors were taken up, many defective drains were found and duly renewed.

Maintenance and repairs are increasing with the age of the Institution. One outstanding job carried out was the retubing of No. 1 central heating calorifier.

The installation in the nurses' home of a steam kettle and hot cupboard has been completed. The old coal range has been replaced by an electric cooker.

An electric cooker has also been installed in the hospital kitchen and cables have been extended to provide current for a sterilizer in the surgical unit.

The furniture generally shows signs of wear and many replacements are required.

The seating of the central hall with steel nesting chairs has been completed and new furniture is on order for the lodges and nurses' home.

Religious Services.

Religious services for Church of England, Nonconformist and Roman Catholic patients have been held each Sunday. Classes for religious instruction have been held once every two weeks by the chaplain of each denomination. All these services are held in the central hall, which is used for many other purposes, and it is hoped in the not far distant future to have proper church accommodation.

Visits.

Miss I. Coffin Duncan, Commissioner of the Board of Control, and Miss C. M. Gavin, Inspector of the Board of Control, visited the Colony on 16th January, 1947.

Lectures.

A course of lectures has been given to doctors taking the Diploma of Psychological Medicine at Bristol University. Lectures have also been given to Bristol University medical students and to the social workers undergoing training for the Testamur of Bristol University and to the nurses undergoing training under the Medical Officer of Health for the Public Health Certificate.

Staff.

The number of female nurses has shown a gradual decline during the year. Starting off with 38 nurses of all grades, we had 29 at the end of the year.

Mental nursing does not appear to appeal to young girls, and it is next to impossible to get recruits. As long as there are so many more attractive openings for employment it does not seem as if the position will improve, and it is no use directing girls to work in which they have no interest, and even possibly a distaste.

The introduction of the part-time nursing scheme is a great help and had it not been for it, it is hard to see how we could have carried on. Some of the part-time nurses are former members of the staff who left our service to get married, but for the most part they have had no previous experience of the work, though many of them are married women whose experience in the care of their own children is a help to them in the work. There have been plenty of applicants for the work under this arrangement, but it is not always easy to get help when we want it most, that is, early morning and late evening and at week-ends and during school holidays, when mothers have to remain at home to look after their children.

One great advantage is that the resident staff can now be sure of their off-duty time and also there is much less night duty for them to do.

Two male nurses and one female nurse were successful in obtaining the certificate of the Royal Medico-Psychological Association in Mental Deficiency Nursing during the year, and two female nurses were successful in the preliminary examination for the certificate.

One male nurse was successful in obtaining the final certificate of the General Nursing Council in mental deficiency nursing.

A special bus service from Bristol, which gives resident nurses an opportunity of attending theatres and cinemas, is very popular. Free cinemas tickets and theatre seats are available each week in one Bristol cinema and two theatres.

Two members of the male nursing staff were seconded to Frenchay Hospital to take general training.

Three female charge nurses were promoted to be assistant matrons.

Mr. H. Chitty, who had been Consulting Surgeon for many years, retired during the year and Mr. W. M. Capper was appointed in his place.

Rev. Father Kenny, Roman Catholic chaplain, resigned during the year and was replaced by Rev. Father A. Hopwood.

The staff Sports Club have arranged dances each month for the nurses and occasional whist drives.

A handicraft class is held in the nurses' home each week and an instructor from the Education Department attends.

Three new wireless sets and two pianos were provided for the nurses' home.

Report by Dr. G. Rudolf, Visiting Psychiatrist.

(a) *Mental Testing.* Emphasis during the year has been largely upon mental testing. A total of 11 female staff and 15 male staff have now been trained in the use and interpretation of certain mental tests. In addition, instructions have been given to a psychologist and to medical practitioners studying for a Diploma in Psychological Medicine. The tests utilised were Kent's, the Progressives Matrices, the Merrill-Palmer, the old Stanford Binet, the Revised Stanford-Binet, Wechsler's Bellevue Verbal, Wechsler's Bellevue Performance, the Porteus Maze, the Thematic Apperception and Doll's Test of Social Maturity.

All patients, except those of too low a mentality, have been tested on either the Merrill-Palmer, the old or revised Stanford-Binet or Wechsler's Verbal Test. Patients over 15 years of age and suitable for Wechsler's Verbal Test, that is, with an intelligence quotient of at least 45-50, are now tested twice yearly, some having been examined on three occasions. The Social Ages of patients of all ages and all mental grades are determined twice yearly by means of Doll's Social Maturity Scale. A total of over 2,000 tests was performed during 1947.

By the close of the year 1948, sufficient information will, it is anticipated, have been obtained to commence comparisons between alterations in the clinical behaviour and any changes in test results.

(b) *Enuresis.* Completion of the first investigation on the ephedrine treatment of nocturnal enuresis occurred during 1947. The extremes of cold and heat during the year were of value in the study. A full account is now in the press.

Additional investigations of this treatment are now in progress.

(c) *Paralysis.* Prostigmin and atropine have been used on a total of 10 cases of upper motor neurone paralysis, i.e., paralysis in which stiffness or apasticity is present. Improvement occurred in one case paralysed for 26 years.

Conclusion. Owing to the change-over in the management of the Colony which will take place in the coming year, this is the last annual report that will be made to the present Committee. It is with regret that we look forward to the break of what has been a very happy association with you, and I know that the staff would like me to thank you for all the help you have given us in our work and in the interest you have shown in the welfare of all. For you, too, I feel that it will be a source of regret to sever your association with the work which you have done so well and which you have seen grow under your guidance.

J. F. LYONS,

Medical Superintendent.

HORTHAM COLONY,

ALMONDSBURY,

NR. BRISTOL.

February, 1948.

PART II.—REPORT OF THE MEDICAL OFFICER OF HEALTH.

To the Chairman and Members of the Mental Deficiency Acts Committee.

I have the honour to submit the following report on the domiciliary work in Bristol under the Mental Deficiency Acts for the year ended 31st December, 1947.

Administrative Arrangements.

The administrative arrangements for the discharge of the Council's duties under the Mental Deficiency Acts, 1913-1938, except so far as the actual care of patients in institutions and homes is concerned, are carried out by specially appointed officers under the supervision of the Medical Officer of Health.

Staff.

Mr. W. E. Price, Supervising Officer from 1920 to 1947, retired in January, 1947, and was succeeded in this appointment from 1st February, 1947, by Mr. Frank Morton, previously Assistant to the Supervising Officer.

Mrs. Thorn, Senior Statutory Visitor, has been appointed Assistant Supervising Officer (Females) and Mr. W. Sparrow Assistant Supervising Officer (Males).

Ascertainment.

Sixty-six new cases were ascertained during the year from the following sources:

	<i>Number.</i>			
Local Education Authority	...	...	...	47
Medical Practitioners	...	...	...	3
Police	...	...	...	6
Social Welfare Committee	...	...	...	3
Miscellaneous	...	...	...	7
				—
				66
				—

The Mental Deficiency Acts Committee considered reports on these cases and directed that they be dealt with as follows:—

Sent to Institutions	...	...	...	22
Placed under Guardianship	...	...	...	4
Placed under Supervision	...	...	...	32
Referred to other authorities	...	...	...	1
No action taken	...	...	...	7
				—
				66
				—

Institutional care for 691 cases was provided by the Mental Deficiency Acts Committee at the following 15 Institutions:—

Hortham Colony	...	...	...	445
Stapleton Institution	...	...	...	125
Chasefield Home	...	...	...	14
Stoke Park Colony	...	...	...	5
St. Mary's Home, Painswick	...	...	...	5
Rampton State Institution	...	...	...	41
Royal Fort Home	...	...	...	17
Royal Hostel, Surrey	...	...	...	27
Peild Heath House	...	...	...	1
Old Rectory, Bath	...	...	...	1
Brockhall Institution	...	...	...	1
Starcross, Devon	...	...	...	1
Totterdown Hall	...	...	...	2
House of Help, Bath	...	...	...	5
Sandhill Institution	...	...	...	1
				—
				691
				—

The Mental Deficiency Acts Committee have no responsibility for educationally subnormal children attending Special Schools, but 331 such cases are included on the register for records purposes.

Guardianship.

The number of guardianship cases has increased considerably (36 in 1947), and as a consequence of the operation of the National Health Service Act this number may be expected to increase still further. For the purpose of comparison, the number of guardianship cases dealt with during each of the previous five years is submitted:

			<i>Males</i>	<i>Females</i>	<i>Total</i>
1947	...	...	13	23	36
1946	...	...	5	6	11
1945	...	...	8	2	10
1944	...	...	6	4	10
1943	...	...	2	7	9
1942	...	...	8	3	11

Statutory Supervision.

The majority of cases under the local authority are subject only to statutory supervision.

Supervision demands regular and untiring efforts to prevent lapse in parental control and to prevent neglect. Difficulties sometimes occur in the homes visited, and many matters outside the intended scope of the visits may arise and call for attention or advice.

This form of care is of first importance in keeping at a minimum the number of patients requiring institutional care. The number of such cases under statutory supervision at the end of December, 1947, was 686; comparative numbers for the previous five years are as follows:—

1947	...	686	1944	...	651
1946	...	682	1943	...	623
1945	...	660	1942	...	622

Voluntary Supervision.

Voluntary supervision is achieved in the course of visits of a social character to cases who, though not subject to the provisions of the Act, are mentally subnormal and may later become subject to be dealt with under the Act. It also provides for after care of defectives discharged from Order. A separate record of these cases, apart from that for which the local authority is statutorily responsible, is maintained.

Petitions.

Patients are sent to and detained in certified institutions as a result of authority obtained under petition. A Justice is specially appointed for the purpose of considering the petition, which must be supported by two medical certificates and a statutory declaration by the petitioner that the circumstances are such as to make the patient subject to be dealt with under the provisions of the Acts.

The Supervising Officer has presented 45 petitions during the year. Of these, two failed to satisfy the Judicial Authority.

Discharges and Deaths.

There have been 29 discharges from Order during the year and 12 deaths. The comparative numbers for the previous five years are submitted.

			<i>Discharges</i>	<i>Deaths</i>
1947	...	...	29	12
1946	...	...	26	12
1945	...	...	37	16
1944	...	...	24	18
1943	...	...	46	22
1942	...	...	81	23

Occupation Centre.

The Occupation Centre has had to undergo severe trials. Within the past few years it has had five changes of address and suffered the total loss of premises and equipment from enemy action.

The staff is now complete and equipment is gradually reaching an approved standard.

The number in attendance is increasing. Parents are realising the benefit to them of the help that this care provides and many expressions of satisfaction have been received.

The records of individual pupils shew a steady general mental improvement throughout the Centre.

The attendees are in classified groups with weekly sessions as follows:—

Juvenile Low Grade	...	5 sessions per week.
Juvenile High Grade	...	5 sessions per week.
Adult Females		5 half-days per week.
Adult Males		5 sessions per week.

The number on the register and the actual attendance for the last session of 1947, as compared with the five previous years, were:—

				<i>No. on register.</i>	<i>No. in actual attendance.</i>
1947	...	...	...	123	93
1946	...	...	...	105	88
1945	...	...	...	86	62
1944	...	...	...	90	67
1943	...	...	...	96	72
1942	...	...	...	97	66

Arrangements have been made for medical inspection of children attending the Centre, and visits by the School Psychologist have also been arranged; the pupils now receive the same medical and Health Centre benefits as other school children.

The mid-day meal is supplied by the school kitchens of the Education Committee at a cost of 1/- for each meal. The Mental Deficiency Acts Committee have expressed the opinion that the meals should be cooked at the Centre to provide additional training for the adult girls, thus reviving a previous arrangement which had proved to be most successful. The Committee is to reconsider the whole position shortly.

Milk is supplied free to juveniles under the "Milk in Schools Scheme."

Observations.

As from the appointed day (5th July, 1948) under the National Health Service Act, 1946, the domiciliary care of the mentally defective will become the responsibility of the Health Committee, and responsibility for institutional care will devolve upon the Regional Hospital Board.

R. H. PARRY, M.D.,

Medical Officer of Health.

Department of Public Health,
Bristol.

February, 1948.

PART III.—MENTAL DEFICIENCY ACTS COMMITTEE.

Statement of Accounts for year ended 31st March, 1948.

EXPENDITURE.

	£
<i>Maintenance at Hortham Colony.</i>	
Salaries, wages, etc.	34,546
Provisions	14,459
Clothing, Inmates' and Staff Uniforms	4,635
Drugs, Medical and Surgical Appliances	705
Fuel, Light and Water	7,139
Cleaning Materials and Laundry Wages	2,172
Furniture, Bedding, Linen and Hardware	2,366
Repairs and Alterations	3,204
Repairs and Alterations—Special Item	1,514
Upkeep of Grounds	787
Transport and Travelling	732
Miscellaneous Expenditure:—	
Printing, Postage, Advertising, Telephone, etc.	638
Awards to Patients	1,372
Recreation and Miscellaneous	537
Maintenance in Hospitals	377
Refund of Superannuation Contributions and Allowances	122
Rents, Rates, Insurance, etc.	3,046
City Treasurer's Dept. (proportion including Loans Management Expenses)	3,520
Social Welfare Committee—proportion of cost of Contracts Dept.	310
	79,279
Loan Charges	12,102
	£91,381
<i>Maintenance at Other Institutions.</i>	
At Institutions under Orders	17,929
By Guardianship under Orders	7,333
Removal and other Expenses	172
	25,434
<i>Occupation Centres</i>	8,555
<i>Supervision and General Expenditure</i>	3,866
TOTAL EXPENDITURE	£129,236

INCOME.

<i>Hortham Colony.</i>	
Occupational Training—surplus	228
Superannuation Deductions	746
Rents	269
Charges for Meals and Laundry	480
Garden Produce	155
Handicrafts	284
Miscellaneous	151
Patients' Earnings (proportion)	991
Ministry of Health Grant re Nurses' Salaries	5,865
	9,169
<i>Occupation Centre</i>	461
Expenses of Certification, etc., recovered	47
<i>Maintenance of Cases.</i>	
Other Local Authorities	42,772
Contributions under Voluntary Agreements, etc.	1,568
TOTAL INCOME	£54,017
NET EXPENDITURE	£75,219

PUBLIC HEALTH

CONTENTS

A. SUMMARY OF WORK OF THE PUBLIC HEALTH DEPARTMENT

	PAGE
Introduction	1
VITAL STATISTICS	4
GENERAL PROVISION OF THE HEALTH SERVICES	
Laboratory facilities	6
Hospitals	6
Radiological services	8
Welfare of the blind	8
Health education	8
Office accommodation	9
Shops Acts and Young Persons (Employment) Act	9
Sanitation, housing and inspection of food	10
Port health services	10
Mental health services	10
MATERNITY AND CHILD WELFARE	
Ante-natal clinics	10
Post-natal clinics	10
Infant welfare centres	10
Care of children apart from their parents	11
Premature babies	11
Day nurseries	12
Nurseries and Child Minders Regulation Act, 1948	14
Sterility clinic	14
Babies' Home, Downend	15
Residential nurseries	15
Unmarried mothers' welfare	16
Dental services (for expectant and nursing mothers and children under five years)	18
EXTERNAL NURSING SERVICE	
Clinic sisters	19
Health visitors and school nurses	20
Home helps	21
Municipal midwives	22
Tutorial section	22
PREVALENCE AND CONTROL OF INFECTIOUS AND OTHER DISEASES	
Diphtheria immunisation	23
Statistical comments	24
Tuberculosis	24
Care and after-care	25
Mass miniature radiography	27
Veneral diseases	27
Acute rheumatism	28
Food poisoning	32

B. APPENDIX

I.	Sanitary circumstances, housing and inspection of food. Report by Mr. F. J. Redstone, chief sanitary inspector	33
II.	The work of the Preventive Medicine Laboratories. Report by Dr. K. E. Cooper	47
III.	The work of the Mental Health Service Section. Report by Dr. J. Hutton, senior assistant medical officer of health	53
IV.	Port Health Services: medical inspection and sanitary circumstances. Report by Dr. D. T. Richards, chief assistant port medical officer	58
V.	Report of Public Analyst, Mr. E. G. Whittle	69
VI.	Health Department Surveys. Report by Dr. R. C. Wofinden, deputy medical officer of health	115
VII.	Meteorological Observations, 1948. By Mr. H. H. Harding, meteorologist, Frampton Cotterell	122
VIII.	Welfare Services in Bristol. By Dr. R. C. Wofinden, deputy medical officer of health	123
IX.	Statistics	126
X.	List of Committee members and staff	170
XI.	Report of the School Medical Officer.	

